2006-08 ACCESSORIES & EQUIPMENT

Navigation System - Civic (Except Hybrid)

COMPONENT LOCATION INDEX

4-door

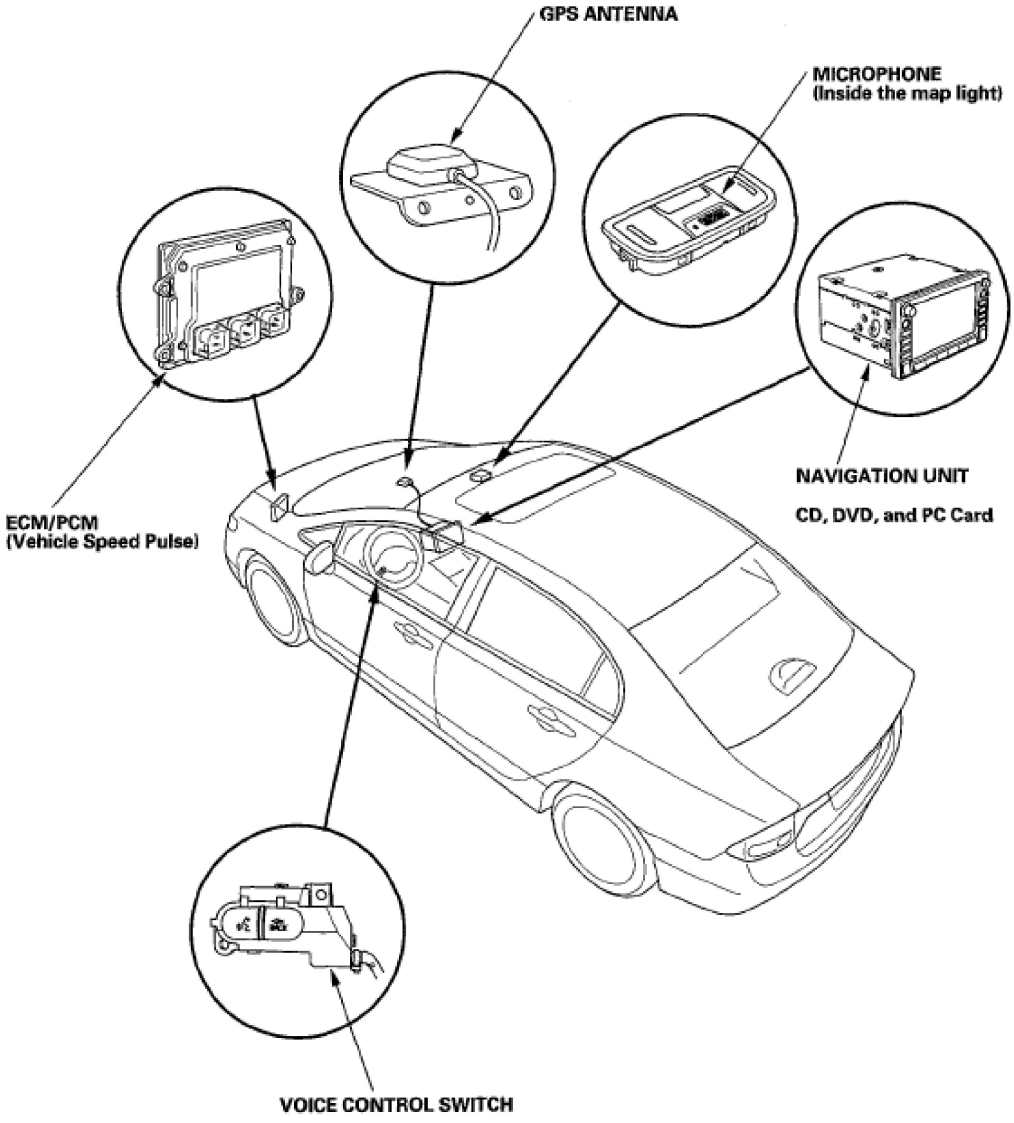


Fig. 1: Identifying Navigation System Component Location - 4-Door
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2-door

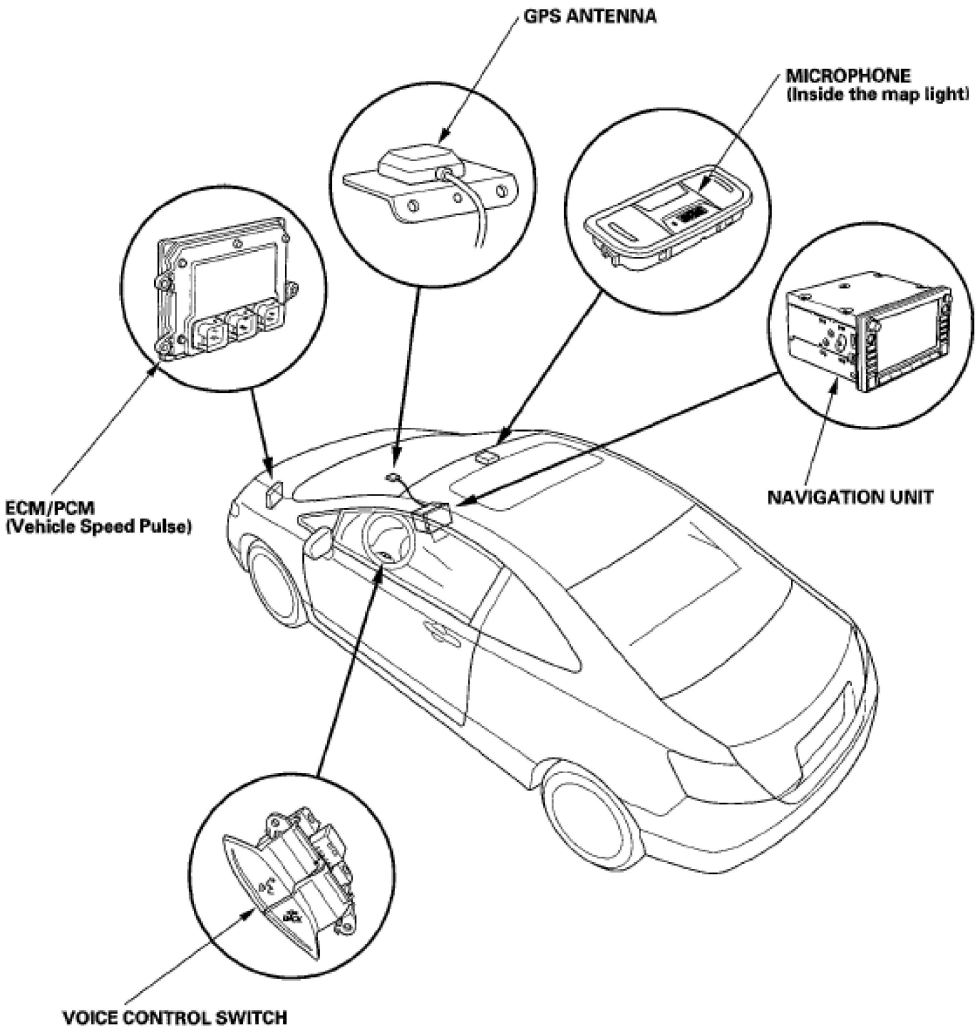


Fig. 2: Identifying Navigation System Component Location - 2-Door
Courtesy of AMERICAN HONDA MOTOR CO., INC.

GENERAL TROUBLESHOOTING INFORMATION

GENERAL OPERATION

Refer to the Navigation System manual, for the navigation system operating procedures.

ANTI-THEFT FEATURE

The navigation system has a coded theft protection circuit. Be sure you have the customer's anti-theft security code before;

- Disconnecting the battery
- Disconnecting the navigation unit 12P and 17P connector
- Removing the No. 23 (10 A) fuse from the under-hood fuse/relay box

After service, reconnect power to the navigation unit, and turn the ignition switch ON (II). Enter the 4-digit anti-theft security codes, then select Done.

If the code cannot be found, use the interactive Network (*i* N) to look it up. You can view the serial number in one of the Navi ECU diagnostic screen (see **TOUCH PANEL CALIBRATION**). Alternatively, you will need the serial number from the navigation unit in the dash.

When replacing the navigation unit, be sure to give the customer the new anti-theft security code.

SYMPTOM DIAGNOSIS

Certain circumstances and system limitations will result in occasional vehicle positioning errors. Some customers may think this indicates a problem with the navigation system when, in fact, the system is normal. Keep the following items in mind when interviewing customers about symptoms of the navigation system.

SELF-INERTIAL NAVIGATION LIMITATIONS

The limitations of the self-inertial portion of the navigation system (the yaw rate sensor and the vehicle speed signal) can cause some discrepancies between the vehicle's actual position and the indicated vehicle position (GPS vehicle position).

The following circumstances may cause vehicle positioning errors:

- Moving the vehicle with the engine stopped and the vehicle stopped, such as by ferry or tow truck, or if the vehicle is spun on a turn table.
- Tire slippage, changes in tire rolling diameters, and some driving situations may cause discrepancies in travel distances. Examples of this include:
  - Continuous tire slippage on a slippery surface.
  - Driving with snow chains mounted.

  - Abnormal tire pressure.
  - Incorrect tire size.
  - Frequent lane changes across a wide highway.
  - Continuous driving on a straight or gently curving highway.
- Tolerances in the system and map inaccuracies will sometimes limit how precisely the vehicle position is indicated. Examples of this include:
  - Driving on roads not shown on the map (map matching is not possible).
  - Driving on a road that winds in one direction, such as a loop bridge, an interchange, or a spiral parking garage.
  - Driving on a road with a series of sharp hair-pin turns.
  - Driving near a gradual highway exit or transition.
  - Driving on one of two close parallel roads.
  - Making many 90 degree turns.
  - The direction to destination icon or the destination icon shown or the map may be up to several hundred feet away from the actual location.

GLOBAL POSITIONING SYSTEM (GPS) LIMITATIONS

The GPS cannot detect the vehicle's position during the following conditions:

- Metallic window tinting above the GPS antenna,
- When only three satellite signals can be received (Four satellite signals are required for accurate positioning).
- When driving near high tension power lines.
- When the satellite signals are blocked by the operation of some electronic after market accessories including, but not limited to non-OEM in-dash entertainment units (radio, CD players/changers, radar detectors and theft recovery systems) and cell phones placed near the navigation system.
- When the satellite control centers are experiencing problems.

The accuracy of GPS is reduced during these instances:

- Metallic window tinting above the GPS antenna.

- When only three satellite signals can be received (Four satellite signals are required for accurate positioning).
- When driving near high tension power lines.
- When the satellite signals are blocked by the operation of some electronic after market accessories including, but not limited to non-OEM in-dash entertainment units (radio, CD players/changers, radar detectors and theft recovery systems) and cell phones placed near the navigation system.
- When the satellite control centers are experiencing problems.

MUTING LOGIC

Whenever the navigation system is giving guidance, the front speakers are muted. When the voice control system is being used, all of the speakers are muted.

LCD UNIT LIMITATIONS

- In cold temperatures, the display may stay dark for the first 2 or 3 minutes until it warms up.
- When the display is too hot because of direct summer sunlight, it will remain dark until the temperature drops.
- When the humidity is high and the interior temperature is low, the display may appear cloudy. The display will clear up after some use.
- Fingerprints on the touch panel may sometimes be noticeable because of the panel's low-reflection coating. Clean the screen with a soft damp cloth. You may use a mild cleaner intended for eye glasses or computer screens. To avoid scratching the panel, do not rub too hard, or use abrasive cleaners, or shop towels.
- The touch panel consists of a touch sensitive resistive membrane covering the display. Unlike previous systems, you must actually touch the display to activate it. Never use hard or sharp implements to operate the screen because you risk damaging the sensing membrane. If a touch switch does not function immediately, shift your finger slightly, and touch it again.

SYMPTOM DUPLICATION

- If you can duplicate the symptom, compare it to a known-good vehicle. Only

use a vehicle of the same model, year, trim, and software version. If you can duplicate the symptom in the known-good vehicle, then it is a characteristic of the system.

- When the symptom can be duplicated, follow the self-diagnostic procedures and the appropriate troubleshooting procedures.
- When the symptom does not reappear or only reappears intermittently, ask the customer about the conditions when the symptom occurred.
  - Try to establish if outside interference may be the cause.
  - Try to duplicate the symptom under the same conditions the customer experienced.
  - Vibration, temperature extremes, and moisture (dew, humidity) are factors that are difficult to duplicate.
  - Inspect the vehicle for after market electronic devices (vehicle locators, radar detector amps, etc.) that may be hidden.

NOTE: When troubleshooting navigation system problems, ensure that the known-good vehicle is the same software version year and model as the vehicle being serviced. Mixing incompatible navigation DVDs or other system components can delay the troubleshooting process by causing effects unrelated to the original problem.

SERVICE PRECAUTIONS

- If the navigation unit needs to be replaced, inform the client that personal information in the navigation system may be lost. If possible, have the customer record any personal information before the unit is replaced. On '07-08 models, you can back up the navigation data and transfer it to a new navigation unit. See **SAVE USER'S MEMORY** .
- Before disconnecting the battery, make sure you have the anti-theft codes for the audio and navigation systems, and write down the audio presets.

  Also obtain any PGM-FI or transmission DTCs and freeze frame date (which will be lost when the ECM/PCM loses power).

- When the battery is disconnected, the internal GPS clock is reset to 0:00. The clock will reset to the correct time after the system finishes GPS initialization.
- After reconnecting the battery, you have to wait to get the initial signal from the satellite. It will take 10 to 45 minutes.
- Before returning the vehicle to the client, enter the audio and navigation anti-theft security codes, then enter the audio presets.
- Adjust the setup clock settings (time zone and daylight savings) in the navigation system.

SYSTEM INITIALIZATION

If for any reason you lose power to the navigation system (the battery was disconnected), the navigation system will require initialization. Once completed, your system will be ready to use.

Initialization requires the following:

- Entering the 4-digit anti-theft security code to unlock the system.
- GPS initialization (may not be needed depending of the length of time the system was without power).
- Map-matching to align the GPS to a location on the map.

ENTERING SECURITY CODE

Anytime power is disconnected from the navigation unit, the 4-digit anti-theft code must be entered on the navigation system display. This 4-digit code can be found on a small code card that was given to the customer. Enter the 4-digit code, then select Done.

If the navigation system anti-theft code cannot be found, use the interactive Network (*i* N) to look it up. You will need the serial number from the navigation unit to do this. You can view the serial number in the diagnostic mode. Select Unit Check from the main menu, then the Navi ECU diagnostic screen. This allows you go get the serial number without removing the navigation unit.

The *i* N may display more than one code for a given serial number. This is because

serial numbers are not unique. You may have to try more than one 4-digit code. If no code is shown, or if the code(s) given do not work in the navigation unit, contact the Automobile Warranty department. If the code 0000 works, then replace the navigation unit.

When replacing the navigation unit or audio unit, be sure to give the customer the new anti-theft security code.

GPS INITIALIZATION

Depending on the length of time the battery was disconnected, your system may require GPS initialization. If it does, the following screen appears:

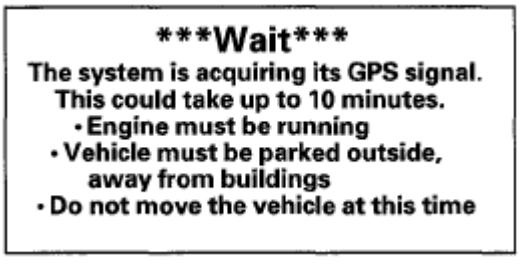

Wait
The system is acquiring its GPS signal.
This could take up to 10 minutes.
• Engine must be running
• Vehicle must be parked outside, away from buildings
• Do not move the vehicle at this time

Fig. 3: Identifying GPS Initialization Label
Courtesy of AMERICAN HONDA MOTOR CO., INC.

If this procedure is not necessary, the system proceeds directly to the Disclaimer screen. During initialization, the system searches for all available GPS satellites and obtains their orbital information. During this procedure, the vehicle should be out in the open with a clear view of the sky.

If the navigation system finds the satellites properly, this box clears and changes to the Disclaimer screen. If within 10 minutes the system fails to locate a sufficient number of satellites to locate your position, the following screen appears:

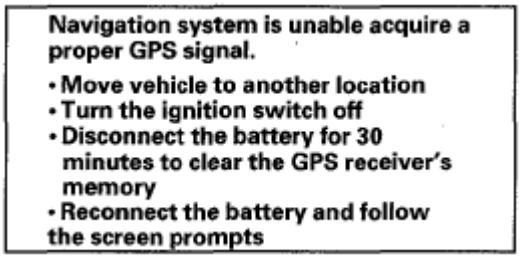

Navigation system is unable acquire a proper GPS signal.
• Move vehicle to another location
• Turn the ignition switch off
• Disconnect the battery for 30 minutes to clear the GPS receiver's memory
• Reconnect the battery and follow the screen prompts

Fig. 4: Identifying GPS Initialization Label
Courtesy of AMERICAN HONDA MOTOR CO., INC.

After 30 minutes with this screen displayed, turn off the engine, then restart the vehicle. If you now see the Disclaimer screen, the GPS initialization is complete.

NOTE:

- **The average acquiring time is less than 10 minutes, but it can take as long as 45 minutes.**
- **If the system is still unable to acquire a signal, follow the instructions on the screen. If this screen appears again, go to troubleshooting for the GPS icon is white or not shown (see GPS ICON IS WHITE OR NOT SHOWN).**
- **To bypass the GPS acquire screens, press and hold the Menu and Zoom Out keys at the same time. Touch the Return button on the screen to exit the diagnostic mode. This allows you to continue troubleshooting while in the shop.**

AFTER SERVICING PROCEDURES-MAP MATCHING

- Park the vehicle in an area where the GPS satellite signals are unobstructed, and check the satellite mark on the display.
- Drive the vehicle 1 mile before entering a destination and confirm the road being used is displayed at the bottom of the screen (map-matched).
- Enter the dealer address and confirm the system routes and performs normally.
- Clear any previous destinations and address entries that may have been entered for testing purposes.

OBTAINING A NAVIGATION DVD

If the navigation DVD is lost or damaged, or you need a yearly updated DVD, you have two ways to purchase one. You can either call (888) 291-4675, or order online at www.honda.com.

Both methods require a credit card. The DVD for this model has a turquoise

(blue/green) label and cannot be ordered through the parts system. The following DVDs will not work in this navigation system:

- Earlier model navigation DVDs (black, orange, or white label)
- Map software programs manufactured by other companies
- DVD movies or DVDs containing audio recordings
- Copies of an original navigation DVD

Updated DVDs are available for purchase usually in the fall of each year. They may contain the following:

- Enhanced maps and points of interest (POI) coverage
- Fixes for minor software bugs
- Additional features

NOTE:

- **Map-matching must be done any time the DVD is removed or replaced.**
- **Always order navigation DVDs on an as-needed basis. During a typical model year, each color DVD may undergo a half a dozen software-only version upgrades to fix minor issues on some or all models the DVD supports. This is normal. Usually only the letter at the end of the version number changes, while the database (maps and POIs) remain unchanged.**
- **Never promise your clients future free updates. There are no free programs for updating the navigation DVD. Update DVDs are generally available for purchase each fall. The online DVD order site provides information when an update for a particular color DVD is available. Damaged discs are not warrantable.**

DVD HANDING AND CLEANING

To avoid damaging or leaving fingerprints on the DVD, always handle it by the edges and place it in a jewel case whenever it is outside the navigation unit. Deep

scratches or fingerprints on the back of the DVD can cause intermittent rebooting or other system errors.

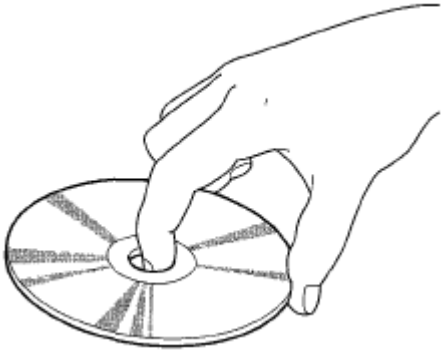


Fig. 5: Precaution For - DVD Handing
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Smudges and fingerprints can be carefully removed using a mild cleaner and tissues designed to clean eyeglasses. To clean a DVD, use a clean soft cloth. Very gently wipe across the DVD from the center to the outside edge, never in a circular motion.

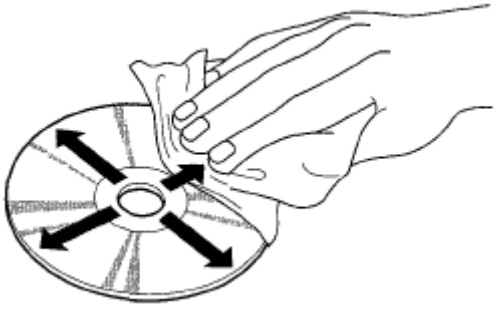


Fig. 6: Precaution For - DVD Cleaning
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Do not place stabilizer rings or labels on the DVD.

EARLIEST DVD VERSION APPLICATION FOR EACH MODEL

Each navigation system DVD contains a map/POI (point of interest) database and the navigation system software for each model that it supports. Inserting an older DVD can cause problems since it lacks the software to provide the specific features

needed for that model. Unfortunately, the navigation software does not detect or warn you that the version is outdated, and it may even appear to operate.

NOTE: Replacing a DVD just because the version number is higher is not always warranted. A higher software version does not necessarily mean it contains newer software for your model. The DVD contains software for all models that use the same color DVD, and a revised number may or may not have software fixes or upgrades for the model in question.

Typical warning symptoms that an outdated DVD is being used include:

- The Honda model navigation screen may display a Acura logo while booting up.
- A newly introduced model future or accessory may not display properly, and Extension will display instead.

NOTE: Extension may be displayed when using Music Link, but should never be displayed when XM is selected.

- The current street (the street being driven on) may not appear properly at the bottom of the map screen display when the vehicle is driven on a main road.

NOTE: If necessary, compare the operation to the navigation system of the same model and year vehicle that has a current DVD.

HOW TO IDENTIFY NAVIGATION DVD VERSIONS, AND HOW TO INSPECT A DVD FOR DAMAGE

To determine the navigation version on a particular model, start the engine, then locate the navigation unit. Open the DVD door, and push the eject button to eject the DVD. Hold the DVD by the edges, and check for these items:

- The label color.
- Read the DVD version on the label, and note it on the repair order. The version number is near the bottom of the label text (for example, ver: 4.23A). You will

need this version number:

- To verify that the DVD version is appropriate for the vehicle.
- Any time you call Tech Line regarding a navigation system issue.
- To answer customer inquires concerning update or coverage issue.

NOTE: Customers may obtain DVDs from sources outside the normal ordering process. If you determine this is the case, recommend that your customer purchase the appropriate DVD from the Honda Disc Fulfillment Center (see ORDERING A DVD).

- Check the underside of the DVD for signs of mishandling. Deep scratches, swirl marks, or fingerprints can cause random lock-ups, reboots, and DVD read or format errors.

NOTE: A damaged DVD is not covered under warranty unless the disc is damaged by the navigation unit. Damage by the navigation unit typically appears as circular scratches caused by something rubbing against the DVD as it spins. The damage may appear as arcs or complete circles on the DVD reading surface.

- Verify that the underside of the DVD is silver, and not a copy with a blue color. Copies will not work properly and can cause other symptoms that mimic hardware problems.

- Incorrectly colored DVDs being put into navigation vehicles. This causes the system to either display error messages, or it causes system malfunctions that mimic a hardware problem. This result in the customer driving away with a malfunctioning navigation system.
- The DVD version provided to the customer is out-of date or incompatible with a particular model. This inconveniences your customer by delaying the repair, or by causing additional (and unnecessary) returns to your dealership.
- The customer experiences bugs or other issues that have already been resolved in later versions currently available at the fulfillment desk.

If the DVD is defective, or has any of the issues mentioned above, return the vehicle to your customer and recommend that they order the proper DVD from the Honda Disc Fulfillment Center (see ORDERING A DVD).

NOTE: If it is determined that the navigation unit is defective (through the appropriate service manual troubleshooting procedures) and the DVD will not eject, order a replacement navigation unit, and also order a DVD from the Honda Disc Fulfillment Center.

HOW TO ANSWER CUSTOMER QUESTIONS ABOUT NAVIGATION COVERAGE

Some customers may ask questions regarding a city, address or POI (point of interest) covered by the navigation system. It is better to verify a coverage question on an actual vehicle than to disappoint your customer by promising coverage that may be incomplete or missing in their area. The following suggestions can be used to answer coverage inquiries from your customer.

Is my address covered by the navigation system?

Using a current production vehicle (of the same model), try entering the customer's address (street first) to see if their area is covered. Always enter the street first, because sometimes their city may be included in a neighboring township, or under some lager metropolitan city name. If the address is shown in a later year vehicle, but not your customer's vehicle, you might want to recommend that your customer purchase an update.

Is my city covered by the navigation system?

For general questions about whether a city is covered, view the map coverage link on the DVD order site. On the site, you enter a year and model, and then click on the Coverage link. You then select a state or province, and the cities are listed. Of course, this does not guarantee that the customer's road or address is in the system. Verifying on an actual production vehicle is always the best guarantee that your information is accurate.

The gas station on my corner is now a restaurant. Why is it still incorrect in

the navigation system?

For POI-related customer questions, explain that businesses are constantly moving, and there can be a considerable lag in updating the millions of POIs in the system. The database is updated annually, and the best way to the verify whether the POI is accurate is verify the inquiry on a current production vehicle.

Answers to these and other questions regarding coverage can be found in these locations:

- In the Frequently Asked Questions section of the navigation system manual.
- At the on-line DVD order site, by clicking on the **FAQs** link (see ORDERING A DVD).

PRECAUTION ON CUSTOMER SNEAK PREVIEWS

Your customer might request a look (or sneak preview) at features in the latest navigation software. You should never preview a navigation DVD in a customer's vehicle. Inserting a new DVD installs the latest software from the DVD into the memory of the customer's navigation system. When the original DVD is reinstalled, the newer software remains in memory and is often incompatible with the customer's original DVD Map and POI database.

If your customer wishes to see the latest navigation coverage or software features, demonstrate it on an in-stock vehicle that already has the latest DVD version.

If, by chance, a newer version is located accidentally, either by the dealer or the customer, the only remedy is to enter the navigation diagnostic mode's Version screen and do a forced download. Refer to the *i* N for applicable patches that may need reinstalling.

SYMPTOM TROUBLESHOOTING INDEX

SYMPTOM TROUBLESHOOTING CHART

Symptom	Diagnostic procedure	Also check for
	Symptom Troubleshooting	• Navigation unit • Open/short between the

No picture is displayed	(see **NO PICTURE IS DISPLAYED**)	navigation unit, or the XM receiver or the GA-Net bus • Harness/fuses/switches
Picture has lines/rolls/other issues or is an odd color	Symptom Troubleshooting (see **PICTURE HAS LINES/ROLLS/OTHER ISSUES OR IS AN ODD COLOR**)	• Navigation unit • Harness/fuses/switches
Navigation display buttons do not work or respond properly	Symptom Troubleshooting (see **NAVIGATION DISPLAY BUTTONS DO NOT WORK OR RESPOND PROPERLY**)	• Navigation unit • Open/short between the XM receiver or the GA-Net bus • Harness/fuses/switches
GPS icon is white or not shown	Symptom Troubleshooting (see **GPS ICON IS WHITE OR NOT SHOWN**)	• Navigation unit • GPS antenna/cable • Harness/fuses/switches
Voice guidance cannot be heard, is broken up, or there is static	Symptom Troubleshooting (see **GPS ICON IS WHITE OR NOT SHOWN**)	• Navigation unit • Harness/fuses/switches
Voice control does not work/respond	Symptom Troubleshooting (see **VOICE CONTROL DOES NOT WORK/RESPOND**)	• Navigation unit • Microphone/steering buttons • Harness/fuses/switches
Vehicle position icon constantly leaves road, moves erratically, or is very far from actual position	Symptom Troubleshooting (see **VEHICLE POSITION ICON CONSTANTLY LEAVES ROAD, MOVES ERRATICALLY, OR IS VERY FAR FROM ACTUAL POSITION**)	• Navigation unit • GPS antenna/cable • ECM/PCM (speed and fuel pulses) • Harness/fuses/switches
	Symptom Troubleshooting	

DVD screen error messages	(see **DVD SCREEN ERROR MESSAGES**)	• Navigation unit • DVD
System always comes up in in-line diagnostic mode	Symptom Troubleshooting (see **DVD SCREEN ERROR MESSAGES**)	Software remedy, do not replace hardware
Display day/night mode does not work	Symptom Troubleshooting (see **DISPLAY DAY/NIGHT MODE DOES NOT WORK**)	• Navigation unit • Gauge control module (CAN) • Harness/fuses/switches
System locks up or freezes constantly	Symptom Troubleshooting (see **DISPLAY DAY/NIGHT MODE DOES NOT WORK**)	• Navigation unit • Harness/fuses/switches • DVD
Vehicle icon wanders across the map when driving (does not follow a displayed road) or map or vehicle ICON spins	Symptom Troubleshooting (see **VEHICLE ICON WANDERS ACROSS THE MAP WHEN DRIVING (DOES NOT FOLLOW A DISPLAYED ROAD) OR MAP OR VEHICLE ICON SPINS**)	Navigation unit (Yaw rate sensor)
Vehicle icon moves by itself or spins when parked	Symptom Troubleshooting (see **VEHICLE ICON WANDERS ACROSS THE MAP WHEN DRIVING (DOES NOT FOLLOW A DISPLAYED ROAD) OR MAP OR VEHICLE ICON SPINS**)	Navigation unit
Navigation	Symptom Troubleshooting (see **NAVIGATION**	• Harness/fuses/switches

display stays on with ignition switch OFF	**DISPLAY STAYS ON WITH IGNITION SWITCH OFF**)	• Aftermarket accessory or cell phone installed
Navigation cannot control audio system	Symptom Troubleshooting (see **NAVIGATION DISPLAY STAYS ON WITH IGNITION SWITCH OFF**)	• Navigation unit • Open/short between the Navigation unit, or the XM receiver or the GA-Net bus
Navigation cannot control XM radio	Symptom Troubleshooting (see **NAVIGATION CANNOT CONTROL XM RADIO**)	• Navigation unit • Open/short between the Navigation unit, or the XM receiver or the GA-Net bus • Harness
Navigation frequently asks for anti-theft code and needs GPS initialization	Symptom Troubleshooting (see **NAVIGATION CANNOT CONTROL XM RADIO**)	• Navigation unit • Harness/fuses/switches/unit grounds
OPEN/CLOSE function of the display does not work	Symptom Troubleshooting (see **OPEN/CLOSE FUNCTION OF THE DISPLAY DOES NOT WORK**)	• Navigation unit • Harness
Navigation display will not close	Symptom Troubleshooting (see **NAVIGATION DISPLAY WILL NOT CLOSE**)	• Navigation unit • Harness
Navigation display does not open or opens part way	Symptom Troubleshooting (see **NAVIGATION DISPLAY WILL NOT CLOSE**)	• Navigation unit • Harness
PC card will not play/card icon	Symptom Troubleshooting (see **AUDIO DISC**	

on audio screen cannot be selected	**CANNOT BE INSERTED AND/OR EJECTED (WITH NAVIGATION)**)	Navigation unit
The vehicle icon lags behind when the vehicle turns	See **SELF-INERTIAL NAVIGATION LIMITATIONS**	• Aftermarket accessories connected to the system • GPS antenna/cable
Navigation screen is darker than normal or takes time to start up when it is cold	See **LCD UNIT LIMITATIONS**	
A new navigation DVD is needed	See **OBTAINING A NAVIGATION DVD**	
The DVD is scratched or dirty	See **DVD HANDING AND CLEANING**	Navigation unit
The wrong DVD was installed and now the system does not function properly	See **PRECAUTION ON CUSTOMER SNEAK PREVIEWS**	• Install the correct version DVD • Check on-line for service bulletins or other service information for the navigation system
A specific city cannot be found	See **PRECAUTION ON CUSTOMER SNEAK PREVIEWS**	The DVD is scratched or dirty

SYSTEM DESCRIPTION

OVERVIEW

The navigation system is a highly sophisticated, hybrid locating system.

The navigation unit uses global positioning system (GPS) satellite signals, internal yaw and vehicle speed inputs, and a map database to show where the vehicle is and to help guide you to a desired destination.

The navigation unit's GPS receiver receives signals from the GPS, a network of 24 satellites in orbit around the earth. By receiving signals from several of these satellites, the navigation system can determine the latitude, longitude, and elevation of the vehicle.

Signals from the system's yaw rate sensor (inside the navigation unit) detects turns, and the ECM/PCM vehicle speed pulse (VSP) and reverse signal enable the system to keep track of the vehicle's speed and direction of travel. The advantage of this hybrid system is that the system can track your position if either the GPS signal or the vehicle speed signal is missing. For instance, when in a tunnel (no GPS), the speed signal is used to update your position on the map. Alternately, while the vehicle is being transported on a ferry, GPS signals can show the vehicle position on the map as it crosses the water.

The navigation system uses the location, direction, and speed information to display the appropriate map and calculate a route to the destination entered. As you drive to a destination, the system provides both visual and audio guidance. Audio guidance is sent to the audio unit, and an RGB graphics color signal is sent to the navigation display.

This navigation system also has voice recognition that allows voice control of most of the navigation, and audio functions. The voice control switches (TALK and BACK buttons on the steering wheel) activate the voice control system. The microphone on the ceiling receives your voice commands. For more information on this feature, consult the navigation owner's guide.

The illumination signal is used by the navigation unit to automatically switch the display mode between the Night and Day display modes. When the headlights are on, the dash brightness control setting full brightness overrides the Night display mode, and allows a daytime navigation display with the lights on.

When the navigation system is giving voice guidance commands, the front speakers are muted. When the voice control system is being used (TALK button pressed), all

of the speakers are muted.

The internal GA-Net II bus passes information back and forth between the navigation display, the navigation unit, and the audio system components. The information passed on this bus are touch button commands, audio muting signal, audio (radio and XM), and any open in these bus lines can affect the navigation system or other audio accessory operation.

The clock on the navigation display is set and maintained by the navigation unit. The time is automatically adjusted for daylight savings, and time zone changes while driving. The time can be adjusted in setup.

Additional information is available about the navigation components following the System Diagram. A glossary of terms that are used throughout this article follows the detailed information.

The Navigation System Manual in the glove box covers all of the system functions and settings. Use this as a resource when evaluating a customer concern.

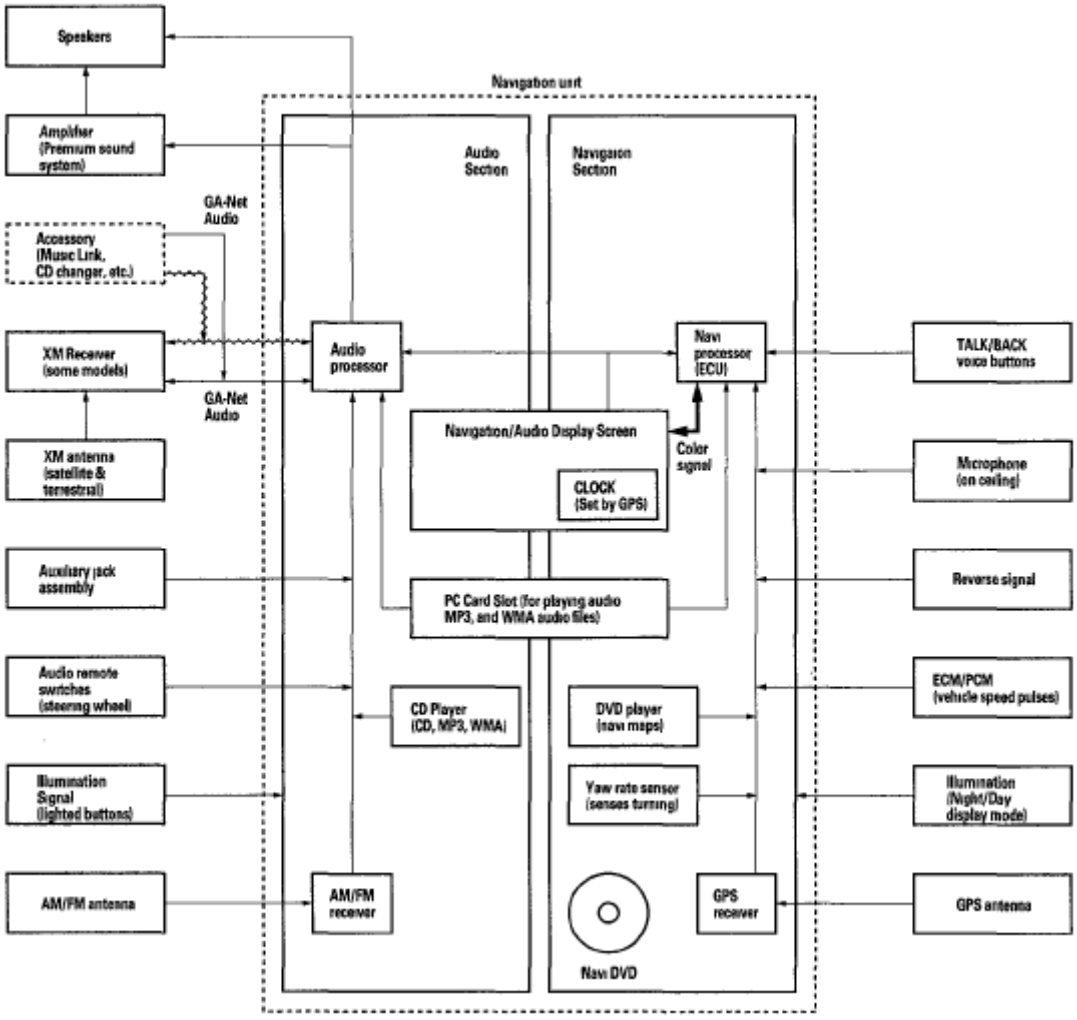


Fig. 7: Navigation System Diagram
Courtesy of AMERICAN HONDA MOTOR CO., INC.

NAVIGATION FUNCTION

The navigation system is composed of the navigation unit, the ECM/PCM (vehicle speed signal), the GPS antenna, microphone, voice control switch, XM receiver, and the climate control unit.

These units communicate with each other on the GA-Net bus.

Function Diagram

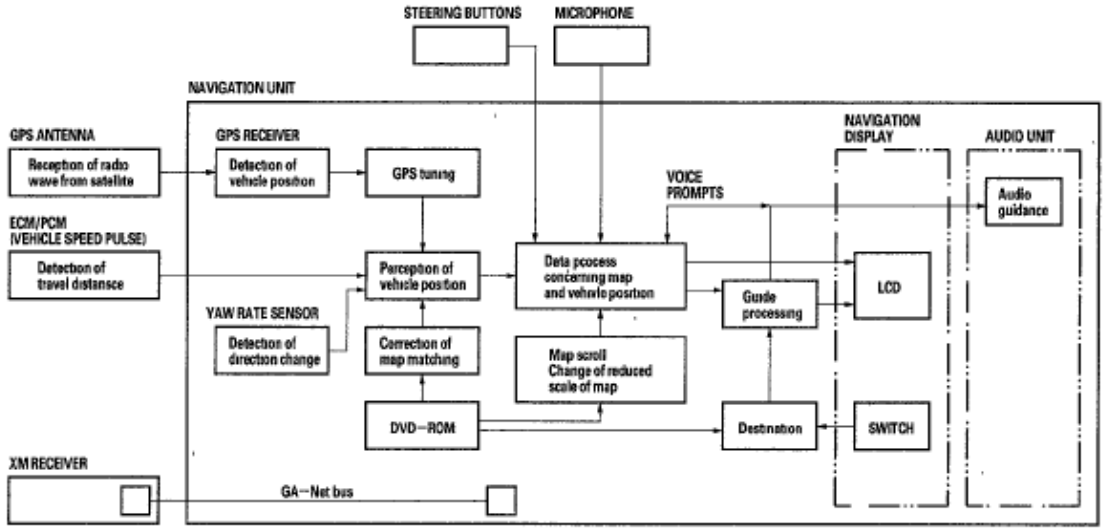


Fig. 8: Navigation System Function Diagram
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Vehicle Speed Pulse

The vehicle speed pulse is sent by the ECM/PCM. The ECM/PCM receives a signal from the countershaft speed sensor, then it processes the signal and transmits it to the speedometer and other systems.

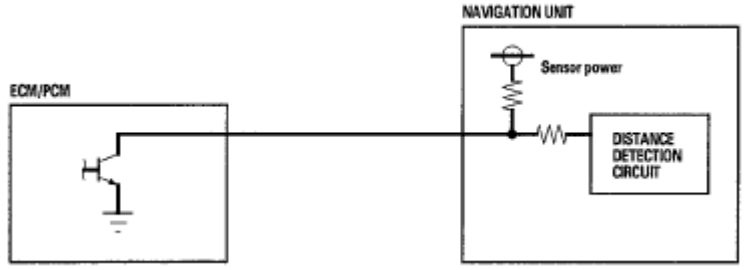


Fig. 9: Vehicle Speed Pulse Circuit Diagram
Courtesy of AMERICAN HONDA MOTOR CO., INC.

GA-Net Bus Configuration

The GA-Net bus passes audio and navigation commands throughout the navigation and audio components.

These commands include audio/XM selections by voice, and XM station and music title names. Because the entire bus is daisy chained between components (see

diagram below), any open or short in the GA-Net bus harness will cause any or all of these functions to become inoperative. The addition of any factory audio accessory must maintain the continuity of the GA-Net bus by installing the Y cable included with the accessory kit.

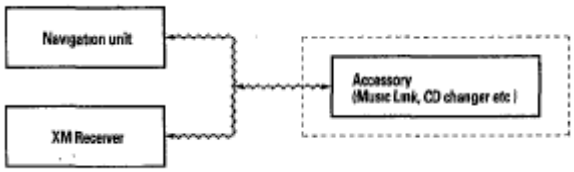


Fig. 10: GA-NET Bus Configuration - Communication Diagram
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Yaw Rate Sensor

The yaw rate sensor (located in the navigation unit) detects the direction change (angular speed) of the vehicle. The sensor is an oscillation gyro built into the navigation unit.

Sensor Element Structure

The sensor element is shaped like a tuning fork, and it consists of the piezoelectric parts, the metal block, and the support pin. There are four piezoelectric parts: one to drive the oscillators, one to monitor and maintain the oscillation at a regular frequency, and two to detect angular velocity. The two oscillators, which have a 90-degree twist in the center, are connected at the bottom by the metal block and supported by the support pin. A detection piezoelectric part is attached to the top of each oscillator. The driving piezoelectric part is attached to the bottom of one oscillator, and the monitoring piezoelectric part is attached to the bottom of the other oscillator.

Oscillation Gyro Principles

The piezoelectric parts have electric/mechanical transfer characteristics. They bend vertically when voltage is applied to both sides of the parts, and voltage is generated between both sides of the piezoelectric parts when they are bent by an external force. The oscillation gyro functions by utilizing this characteristic of the piezoelectric parts and Coriolis force. (Coriolis force deflects moving objects as a result of the earth's rotation.) In the oscillation gyro, this force moves the sensor

element when angular velocity is applied.

Operation

1. The driving piezoelectric part oscillates the oscillator by repeatedly bending and returning when an AC voltage of 6 kHz is applied to the part, The monitoring-side oscillator resonates because it is connected to the driving-side oscillator by the metal block.
2. The monitoring piezoelectric part bends in proportion to the oscillation and outputs voltage (the monitor signal). The navigation unit control circuit controls the drive signal to stabilize the monitor signal.
3. When the vehicle is stopped, the detecting piezoelectric parts oscillate right and left with the oscillators, but no signal is output because the parts are not bent (no angular force).
4. When the vehicle turns to the right, the sensor element moves in a circular motion with the right oscillator bending forward and the left oscillator bending rearward. The amount of forward/rearward bend varies according to the angular velocity of the vehicle.
5. The detecting piezoelectric parts output voltage (the yaw rate signal) according to the amount of bend. The amount of vehicle direction change is determined by measuring this voltage.

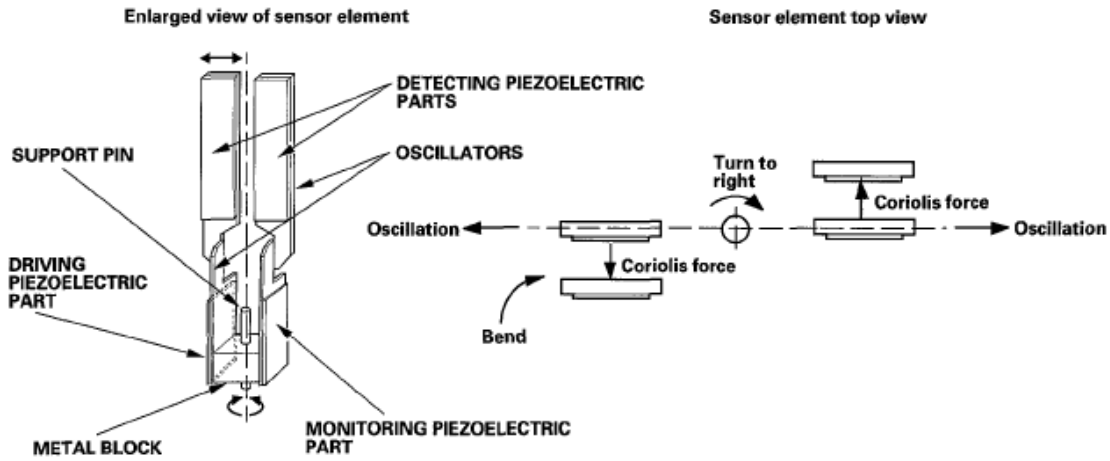


Fig. 11: Enlarged View Of Sensor Element
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Global Positioning System (GPS)

The global positioning system (GPS) enables the navigation system to determine the current position of the vehicle by using the signals transmitted from the satellites in orbit around the earth. The satellites transmit the satellite identification signal, orbit information, transmission time signal, and other information. When the GPS receiver receives a signal from four or more satellites simultaneously, it calculates the current position of the vehicle based on the distance to each satellite and the satellite's positions in its respective orbit.

Position Detection Image with GPS Satellite

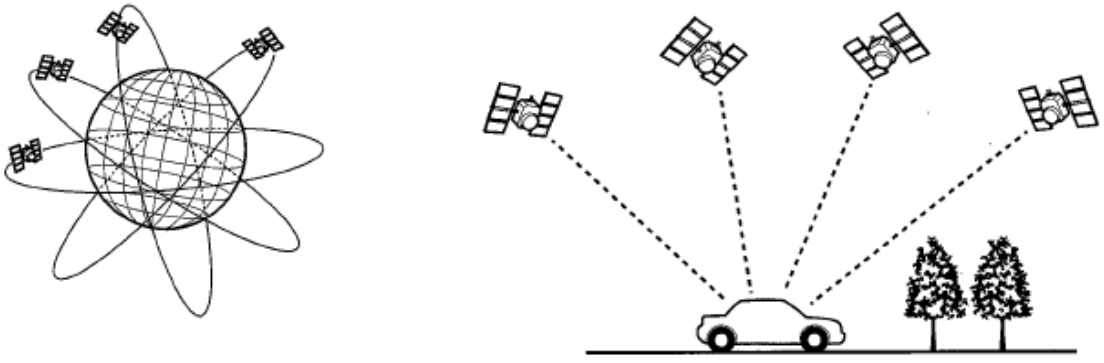


Fig. 12: Identifying Position Detection Image With GPS Satellite
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Precision of GPS

The precision of the GPS varies according to the number of satellites from which signals are received and the view of the sky. The precision is indicated by the color and shape of the GPS icon shown on the display.

PRECISION GPS

GPS ICON COLOR	NUMBER OF SATELLITES	CONDITION	DESCRIPTION
White GPS icon	None	Faulty	The GPS can't be utilized due to a faulty GPS receiver, open in the wire, or other fault or interference.
		Impossible to detect	GPS function is normal. The satellite signals received by

	2 or less	vehicle position	the GPS are too few to detect the vehicle position.
Green GPS icon	3	Vehicle position detectable in 2 dimensions	The longitude and latitude of the vehicle position can be detected. (Less precise than detection in three dimensions)
	4 or more	Vehicle position detectable in 3 dimensions (elevation displayed)	The longitude, latitude and the altitude of the vehicle position can be detected. (More precise than detection in two dimensions)

GPS Antenna

The GPS antenna amplifies and transmits the signals received from the satellites to the GPS receiver.

GPS Receiver and Clock

The GPS receiver is built into the navigation unit. It calculates the vehicle position by receiving the signal from the GPS antenna. The current time vehicle position and signal reception condition is transmitted from the GPS receiver to the navigation unit to adjust vehicle position.

Navigation Unit

The navigation unit calculates the vehicle position and guides you to the destination. The unit performs map matching correction, GPS correction, and distance tuning. It also controls the menu functions and the DVD-ROM drive, and interprets voice commands. With control of all these items, the navigation unit makes the navigation picture signal, then it transmits the signal to the navigation display and audio driving instructions to the audio unit.

Calculation of Vehicle Position

The navigation unit calculates the vehicle position (the driving direction and the current position) by receiving the directional change signals from the yaw rate

sensor and the travel distance signals from the PCMs vehicle speed pulse (VSP) signal.

Map Matching Tuning

The map matching tuning is accomplished by indicating the vehicle position on the roads on the map. The map data transmitted from the DVD-ROM is checked against the vehicle position data, and the vehicle position is indicate on the nearest road. Map matching tuning does not occur when the vehicle travels on a road not shown on the map, or when the vehicle position is far away from a road on the map.

GPS Tuning

The GPS tuning is accomplished by indicating the vehicle position as the GPS's vehicle position. The navigation unit compares its calculated vehicle position data with the GPS vehicle position data. If there is large difference between the two, the indicated vehicle position is adjusted to the GPS vehicle position.

Distance Tuning

The distance tuning reduces the difference between the travel distance signal from the VSP and the distance data on the map. The navigation unit compares its calculated vehicle position data with the GPS vehicle position data. The navigation unit then decreases the tuning value when the vehicle position is always ahead of the GPS vehicle position, and it increases the tuning value when the vehicle position is always behind the GPS vehicle position.

Route Guidance

The navigation unit can calculate different routes to a selected destination. You have five options:

- Direct Route - Calculate a route that is the most direct.
- Easy Route - Calculate a route that minimizes the number of turns needed.
- Minimize Freeways - Calculate a route that avoids freeway travel. If that is not possible, keep the amount of freeway travel to a minimum.
- Minimize Toll Roads - Calculate a route that avoids, or minimizes travel on toll roads.

- Maximize Freeways - Calculate a route that uses freeways as much as possible.

Audio Guidance

The navigation unit transmits audio driving instructions before entering an intersection or passing a junction.

The audio instructions come through the audio unit to the front speakers.

NOTE: The front speakers are muted whenever the navigation system is giving guidance commands, and all of the speakers are muted when the voice control system is being used.

DVD-ROM

The map data (including all scale rates) is stored in the DVD-ROM. The map data includes:

- Road distances, road widths, speed limits, traffic regulations, passing time at junction, distances to junctions, and the driving instructions for audio guidance.
- Latitude and longitude GPS.

Audio Unit (Built in the navigation unit)

The audio unit receives the audio driving instructions from the navigation unit, and transmits the instructions through the front speakers even when the audio system is in use.

Navigation Display

The navigation display uses liquid crystal display (LCD). The LCD is a 6.5-inch-diagonal, thin film transistor (TFT), stripe type with 65,536 color, The color film and fluorescent light are laid out on the back of the liquid crystal film. The touch sensor on the front of the LCD consists of a touch sensitive resistive membrane with an infinite number of possible touch locations.

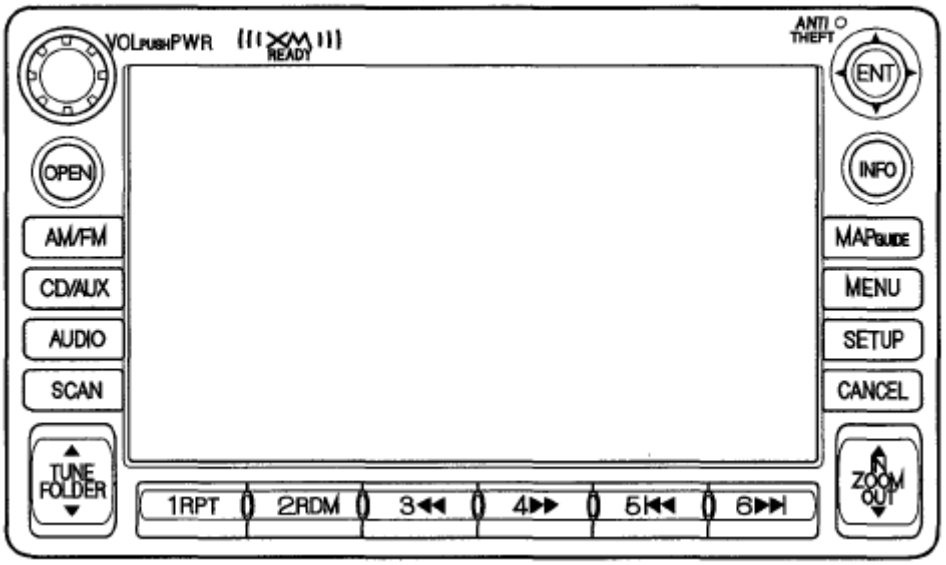


Fig. 13: Identifying Audio Unit
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Microphone

The microphone (on the ceiling, near the front map light) receives voice commands and transmits them to the navigation unit for interpretation.

TALK Button

Activates the voice control system in the navigation unit to accept voice commands.

BACK Button

Returns the display to the previous screen (similar function as the CANCEL button).

Glossary

The following is a glossary of terms pertaining to the Voice Recognition Navigation System.

GLOSSARY ITEM AND DESCRIPTION CHART

Item	Definition
Breadcrumbs	Off road tracking dots that can be followed on the map to retrace your route back to a mapped (digitized) road. This

	function can be turned on/off in Setup screen 1.
CPU	Central Processing Unit. The main device within the navigation unit that coordinates the rest of the electronic functions.
Database	This consists of the Map data, and the POI (Points Of Interest) data stored on the DVD.
DBW	Drive By Wire. Allows electrical control of the throttle without the need of a mechanical linkage.
DCA	Detailed coverage area, an area that is covered in the database digital mapping. For example, the 48 continuous United States are within the DCA. Hawaii and Alaska are outside of the DCA.
DTC	Diagnostic Trouble Codes. Use the HDS tablet to obtain, and troubleshoot the cause of these codes.
Dead Reckoning	The use of the speed signal, and yaw rate sensor to position the vehicle on the map even when tall buildings, or driving in a tunnel obscures the GPS signal.
Digitized Road	A road that appears on the navigation screen. The road name will appear at the bottom of the navigation screen. If the user drives off road, the navigation system will display Not on a digitized road. The breadcrumbs will appear after driving for 1/2 mile.
Disclaimer Screen	Screen containing cautionary information. It is meant to be read carefully and acknowledged by the customer when using the navigation system.
DVD or DVD-ROM	Digital Versatile Disk. The navigation program and database resides on this disk. See the Navigation Owner's Manual for information on how to order a replacement or an update DVD.
ECM	Engine Control Module. Typically referred to as the ECM.
FAQ	Frequently Asked Question. See the Navigation Owner's Manual for a list of the customer FAQs, and troubleshooting information.
GA-Net bus	Units communication line.

GPS	Global Positioning System. A network of 24 satellites in orbit around the earth. The navigation system can simultaneously receive signals from up to 12 satellites to accurately position the vehicle on the map.
HDS	Honda Diagnostic System. A hand held tablet PC used for diagnosing vehicle problems.
H/U	Head Unit. The navigation system display unit assembly in the dash.
Initialization	This refers to the period needed to re-acquire the GPS satellite orbital information whenever the navigation system power has been disconnected. This can take from 10 to 45 minutes.
LCD	Liquid Crystal Display (the navigation screen)
Map Matching	The received GPS information allows the navigation system to position the vehicle on the map. Map matching has occurred if the map screen is displaying the current street name in the bottom-shaded area.
Mic	Abbreviation for the microphone used for receiving voice commands. It is located near the map light in the ceiling.
MW	Maneuver Window. While on-route to a destination, this window displays information about the next maneuver.
Navi	Abbreviation for the Navigation System
Off Route	This occurs when the user leaves mapped roads. Off road tracking dots (breadcrumbs) are displayed if the option is enabled in Setup. The user can use them to return to a mapped road. The bottom of the navigation screen will say "Not on a digitized road". Breadcrumbs will appear after driving for 1/2 mile.
Outlying Areas	These are rural areas that typically have only their main roads mapped. All other roads are shown in light brown for reference only, since they have not been verified.
PC Card Slot	The PC card (PCMCIA, type II) slot is for playing MP3 and WMA audio files.
	Powertrain Control Module. This unit supplies the navigation

PCM	system speed signal.
PCMCIA	A computer industry defined term referring to the PC card slot standard.
PIN	Personal Identification Number. A random 4 digit number created by the customer to protect personal information.
POI	Point Of Interest. These are the businesses, schools etc. found under the places option on the main menu.
Polygon	Colored areas on the map screen denoting parks, schools etc. See the Navigation System Manual "Traveling to Your Destination" for a list of the assigned colors.
QWERTY	Keyboard layout resembling the typewriter keys. The keyboard layout can be changed to an alphabetical layout in the Setup mode.
Security Code	Code needed to activate the navigation system. You can obtain the security code from the iN by entering the navigation system control serial number. You can find the serial number on the diagnostic screens (Unit Check, Navi ECU) or on the underside of the navigation unit.
Touch Screen Buttons or Touch Sensor	The display panel has 2 layers of clear film on the screen panel. If you touch the screen panel, the layers engage and the navigation display detects the touch point.
Tuning	A continual update of internal navigation system scaling factors. See the individual sensor tuning discussions under either System Description, or System Diagnostic Mode (see **SYSTEM DIAGNOSTIC MODE**) in this article.
Unverified Streets	These streets have not been verified for turn restrictions, one-way, etc. They are shown in light brown on the map. You can enter address destinations in these areas, but depending on your Unverified Routing choice in setup, voice guidance may end at the last verified street closest to your destination.
Verified Streets	These streets consist of the detailed metropolitan coverage areas, and all other inter-town connection roads. These roads are shown in black on the map.
	Vehicle Position. When in map mode, this circular icon

VP	shows the vehicle position on the map. Touch this icon to show the latitude, longitude, and elevation of your current position.
VR	Voice Recognition. This allows voice control of many of the navigation functions. The hardware consists of the microphone, steering wheel (TALK/BACK) buttons, and the front speakers. See the overview for more information.
VSP	Vehicle Speed Pulse. This pulse signal coming from the ECM/PCM is used to update the Vehicle position on the map. These pulses do not indicate direction (forward or backward). When in reverse, the navigation receives a signal from the MICU and directs the VP to move backwards on the map.
VSS	Vehicle Speed Signal. The counter shaft speed sensor reads the output shaft speed at the transmission and provides a speed pulse to the ECM/PCM. The ECM/PCM sends this pulse to the navigation system.
XM Satellite Radio	A satellite band radio system where signals are received from either a satellite or land based transmitters.
Yaw Sensor	This device is located in the navigation system control unit and senses the side-to-side twisting force generated when the vehicle turns. See a detailed description of how this sensor works in this article.

Diagnostic System Diagram

This diagram below shows an overview of the navigation diagnostic features starting at the center and working outward in layers. The diagram starts with "Key On." Next the diagram shows two ways to get the diagnostic main menu:

From any of the navigation Map or Menu screens, press and simultaneously hold the keys Menu Map Cancel.

Finally, the diagram shows the available diagnostic menu choices, starting at the bottom left, and moving clockwise. In most cases, do not clear or change settings in any diagnostic screen unless instructed to do so in the explanation, or by the

factory. If the factory asks you to insert a PCMCIA memory card into the PC card slot, then the features specified on the diagram with PC card are available.

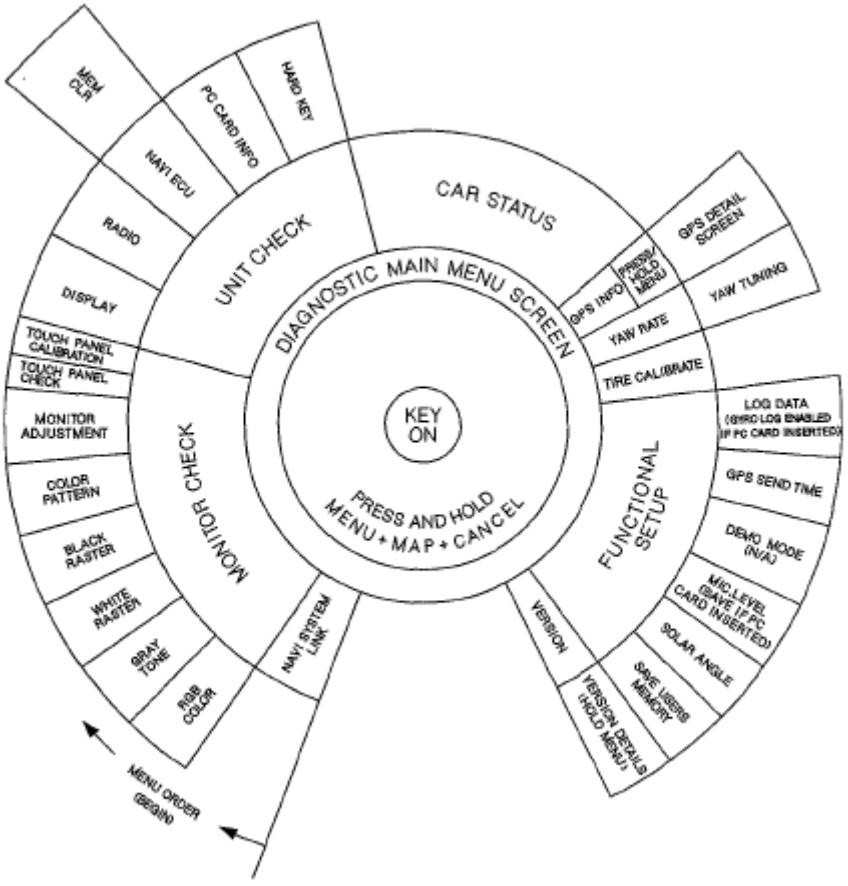


Fig. 14: Diagnostic System Diagram
Courtesy of AMERICAN HONDA MOTOR CO., INC.

NAVIGATION SYSTEM CONNECTOR LOCATION

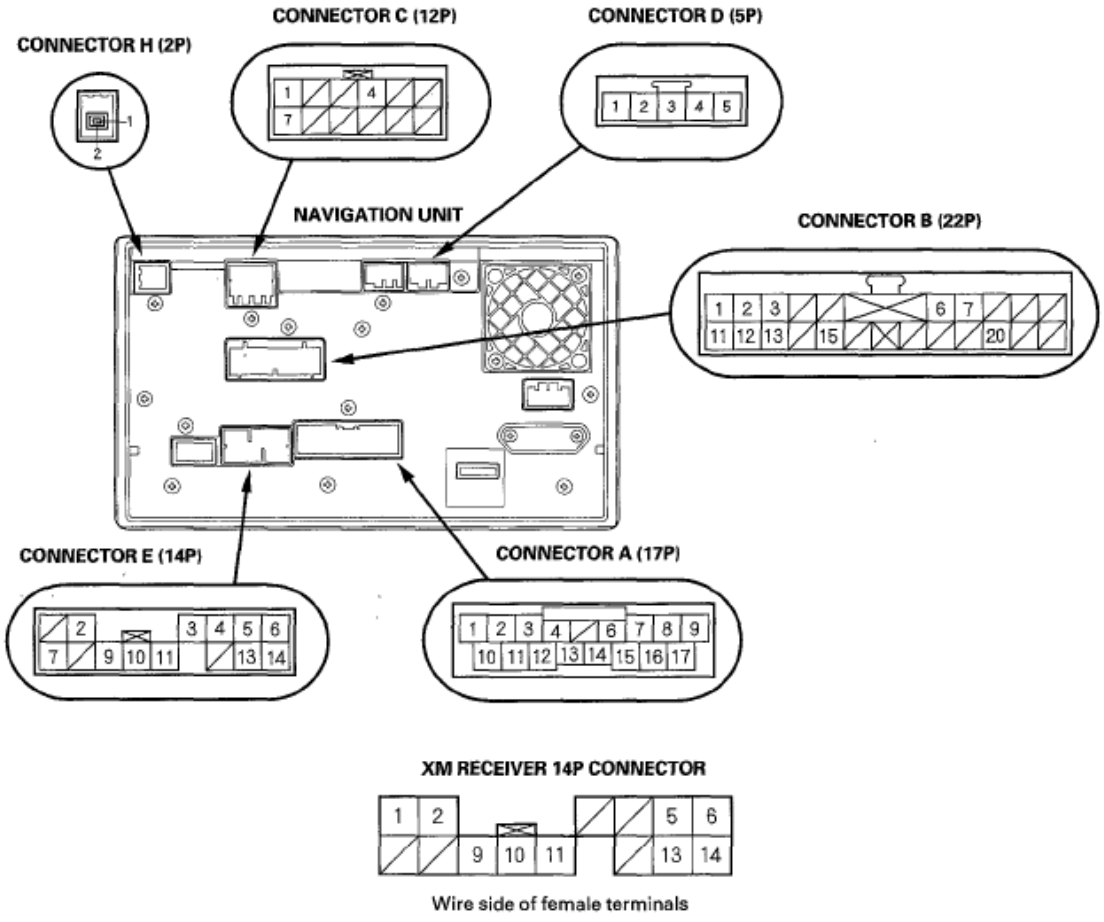


Fig. 15: Identifying Navigation System Connector Location
Courtesy of AMERICAN HONDA MOTOR CO., INC.

NAVIGATION UNIT INPUTS AND OUTPUTS FOR CONNECTOR A (17P)

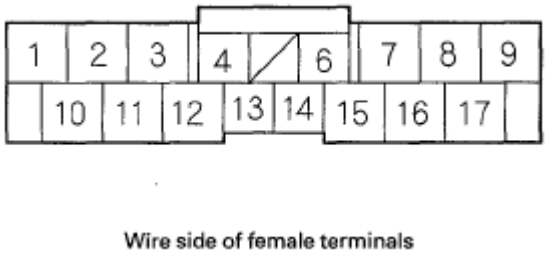


Fig. 16: Identifying Navigation Unit Connector A (17P) Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

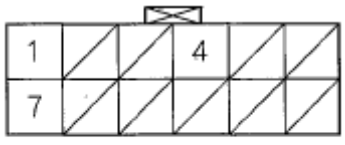
TERMINALS REFERENCE CHART

Terminal	Wire	Terminal	Description	Voltage	Symptom

Number	Color	Name		(about)	
1	RED	ILL (-)	Ground for illumination light	With full dash lights brightness, 0 V	If open: When brightness = Auto, night mode for the display is inoperative when lights on. If short to ground: No change to display
9	BLK	RADIO GND (Ground)	Ground for display unit	0 V	If open: No change to display. If short to ground: No change to display.
10	GRY	ILL (+) (Illumination positive)	Parking light on signal from dash and console lights	Light on = battery voltage, Lights off = 0 V	If open: When brightness = Auto, night mode for the display is inoperative when lights on If short to ground: Blows fuse No. 14 (7 5 A) in under-dash fuse/relay box.
					If open: No vehicle speed pulses. Diagnostic

13	BLU	VSP (Vehicle speed pulse)	Vehicle speed pulse signal from ECM/PCM	Pulses 0-5 V: Average 2.5 V, when moving	screen Car Status, VSP Navi = 0. If short to ground: No vehicle speed pulses. Diagnostic screen Car Status, VSP Navi = 0.
17	WHT	+B (+B power source)	Continuous power source	Battery voltage	If open: Screen completely off (no backlight visible). If short to ground: Blows fuse No. 23 (10 A) in the under-hood fuse/relay box.

NAVIGATION UNIT INPUTS AND OUTPUTS FOR CONNECTOR C (12P)



Wire side of female terminals

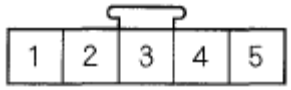
Fig. 17: Identifying Navigation Unit Connector C (12P) Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

TERMINALS REFERENCE CHART

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom

1	WHT	+B BACK UP	Continuous power source	Battery voltage	If open: Display picture goes out (display back light still on). NOTE: System will reboot to enter code screen. If short to ground: Blows fuse No 23 (10 A) in the under-dash fuse/relay box.
4	BLK	GND	Ground for navigation unit	0 V	If open: No effect on system. If short to ground: No effect on system.
7	BRN	BACK LT-	Reverse signal of select laver from Multiplex integrated Control unit (A/T) or backup light switch (M/T)	In reverse, battery voltage Otherwise 0 V	If open: Navigation never sees the reverse signal and back-up camera does not come on when in reverse. Diagnostic screen Car Status, Back = 0. If short to ground' Blows fuse No. 10 (7 5 A) in the under-dash fuse/relay box.

NAVIGATION UNIT INPUTS AND OUTPUTS FOR CONNECTOR D (5P)



Wire side of female terminals

Fig. 18: Identifying Navigation Unit Connector D (5P) Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

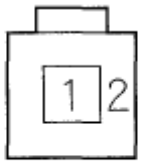
TERMINALS REFERENCE CHART

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	BRN	MIC GND	Ground for microphone signal	0 V	If open: No microphone signal shown in diagnostics: Navi System Link and Functional Set up Mic Level. If short to ground: No effect on voice recognition.
2	YEL	MIC SIG+	Microphone output signal positive	4-5 V (with TALK button pressed)	If open: No microphone signal shown in diagnostic screens: Navi System Link and Functional Setup Mic Level. If short to ground: No microphone signal shown in diagnostic screens: Navi System Link and Functional Setup Mic Level.
3	GRY	MIC	Shield for terminal No.	0 V	If open: No effect on voice recognition. If short to ground: No

	(1)	SHIELD	1, 2, 5		effect on voice recognition.
4	GRN	NAVI GUIDE	Steering wheel switch output	4-5 V (TALK button pressed) 2.5-3 V (BACK button pressed)	If open: Steering wheel TALK, and BACK switch/ buttons do not work. If short to ground: Steering wheel TALK, and BACK switch/buttons do not work.
5	ORN	MIC ADPT	Control signal for microphone	0 V	If open: No effect on voice recognition. If short to around: No effect on voice recognition.

(1) The shielded wires have a heat-shrunk tube insulating the outside of the wire. The color of the insulating tube, typically black or dark gray, may not match the color of the wire listed on the schematic.

NAVIGATION UNIT INPUTS AND OUTPUTS FOR CONNECTOR H (2P)



Wire side of female terminals

Fig. 19: Identifying Navigation Unit Connector H (2P) Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

TERMINALS REFERENCE CHART

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
					If open: GPS icon on

1	-	GPS	GPS signal (5 V in, GPS signal out)	5 V	screen is white, system links screen ANT shows NG. If short to ground: GPS icon on screen is white, system links screen ANT shows NG.
2	-	GPS SH	Shield for terminal No. 1	0 V	If open: GPS icon on screen is white, system links screen ANT shows NG. If short to around: No effect on system.

CIRCUIT DIAGRAM

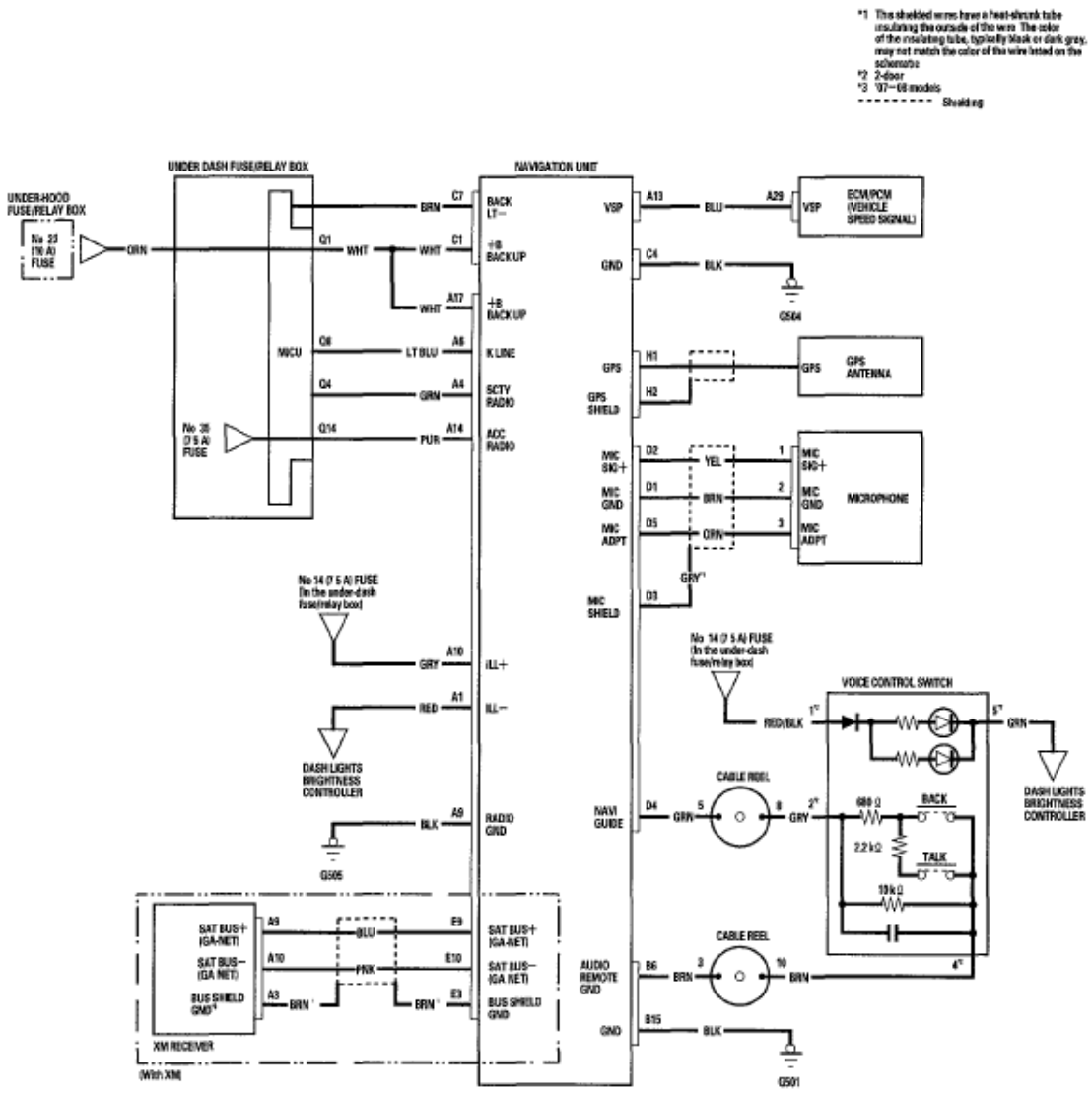


Fig. 20: Navigation System - Circuit Diagram
Courtesy of AMERICAN HONDA MOTOR CO., INC.

SYMPTOM TROUBLESHOOTING

NO PICTURE IS DISPLAYED

NOTE:

- **Make sure that the correct DVD color and version are installed.**
- **Check any official Honda service website for more service information about the navigation system.**
- **For problems with the rearview camera, do the rearview**

camera does not come on or work properly troubleshooting.

- **Check the connectors for poor connections or loose terminals.**
- **Before troubleshooting, make sure you have the navigation system anti-theft code.**

1. Check the No. 23(10 A) fuse in the under-hood fuse/relay box and No. 35 (7.5 A) fuse in the under-dash fuse/relay box, and reinstall the fuse if it is OK.

   Is the fuse OK?

   YES -Go to step 2.

   NO -Replace the fuse and recheck.

2. Turn the ignition switch to ON (II).
3. Operate the radio and listen to the audio.

   Can you hear the audio?

   YES -Go to step 4.

   NO -Refer to audio system troubleshooting.

4. Turn the ignition switch to LOCK (0).
5. Remove the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).
6. Measure the voltage between navigation unit connector A (17P) terminal No. 17 and body ground.

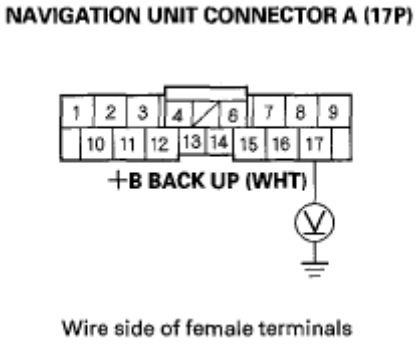


Fig. 21: Measuring Voltage Between Navigation Unit Connector A (17P) Terminal No. 17 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES -Go to step 7.

NO -Repair open in the wire between the under-dash fuse/relay box and the navigation unit.

7. Turn the ignition switch to ON (II).
8. Measure the voltage between navigation unit connector A (17P) terminal No. 14 and body ground.

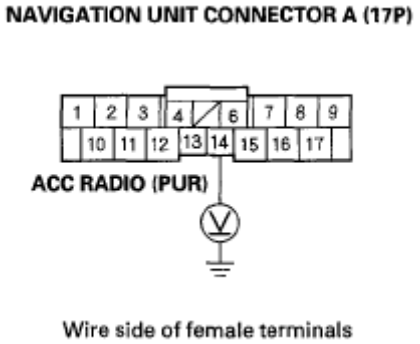


Fig. 22: Measuring Voltage Between Navigation Unit Connector A (17P) Terminal No. 14 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES -Go to step 9.

NO -Repair open in the wire between the under-dash fuse/relay box and the navigation unit.

9. Measure the voltage between the navigation unit connector A (17P) terminal No. 9 and body ground, and between navigation unit connector C (12P) terminal No. 4 and body ground.

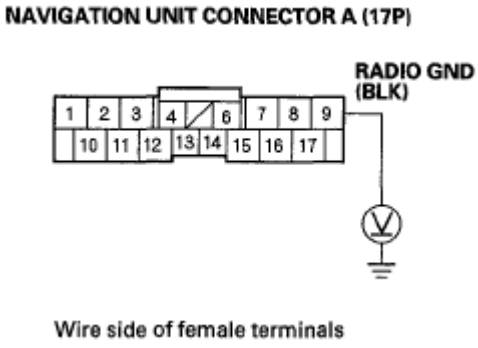


Fig. 23: Measuring Voltage Between Navigation Unit Connector A (17P) Terminal No. 9 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

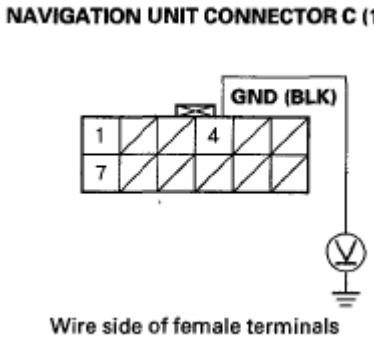


Fig. 24: Measuring Voltage Between Navigation Unit Connector C (12P) Terminal No. 4 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there less than 0.1 V?

YES -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NO -Repair open in the wire between the navigation unit and body ground (G504) (see **CONNECTOR TO HARNESS INDEX**), (G505) (see **CONNECTOR TO HARNESS INDEX**).

PICTURE HAS LINES/ROLLS/OTHER ISSUES OR IS AN ODD COLOR

NOTE:

- **Make sure that the correct DVD color and version are installed.**
- **Check any official Honda service website for more service information about the navigation system.**
- **Check the navigation screen settings for brightness, contrast, black level and the color screen for map color and menu color.**
- **Check the connectors for poor connections or loose terminals.**
- **Before troubleshooting, make sure you have the navigation and audio system anti-theft codes.**

1. Check for electronic aftermarket accessories (possibly hidden) mounted near the navigation unit.

   Are there any electronic accessories?

   YES -Disable the accessories, and recheck.

   NO -Go to step 2.

2. Turn the ignition switch to ON (II).
3. Start up the navigation picture.

   Is the picture scrolling horizontally (left to right or right to left)?

   YES -Go to step 5.

   NO -Go to step 4.

4. Go into the Diagnostic mode and use RGB Color diagnostic under Monitor Check (see **MONITOR CHECK**).

   Are the red, green, and blue colored circle shown?

   YES -Go to step 5.

   NO -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

5. Turn the ignition switch to LOCK (0), then turn to ON (II) and observe the navigation picture.

   Did the image improve?

   YES -Check for sources of electrical noise, such as poor battery connection, alternator, defective battery, aftermarket accessories or cell phone, and poor pin fits at the display or control unit.

   NO -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NAVIGATION DISPLAY BUTTONS DO NOT WORK OR RESPOND PROPERLY

NOTE:

- **Always make sure that the correct DVD color and version are installed.**
- **Check any official Honda service website for more service information about the navigation system.**
- **Always check the connectors for poor connections or loose terminals.**
- **Before troubleshooting, make sure you have the navigation and audio system anti-theft codes.**

1. Turn the ignition switch to ON (II).

   Does the navigation display turn on?

YES -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NO -Refer to troubleshooting for **NO PICTURE IS DISPLAYED** .

GPS ICON IS WHITE OR NOT SHOWN

NOTE:

- **Make sure the vehicle is parked outside and away from buildings.**
- **Refer to GPS INFORMATION for realtime satellite reception display.**
- **Check for window tinting above the GPS antenna and any non-OEM accessories mounted near the navigation unit or GPS antenna.**

1. Check for metallic window tint on the windshield and electronic aftermarket accessories (possibly hidden) mounted near the GPS antenna or the navigation unit.

   Is there metallic window tint or electronic accessories?

   YES -Remove tint or the accessories and recheck.

   NO -Go to step 2.

2. Go into the Diagnostic Menu and use the Navi System Link test (see **SYSTEM DIAGNOSTIC MODE**) to check the GPS antenna.

   Is the GPS Ant icon red?

   YES -Use the Navi ECU test under Unit Check (see **UNIT CHECK**) to check for a kinked, crushed, or disconnected GPS antenna wire. If necessary, try a known-good GPS antenna. If icon is still red, replace the navigation unit.

   NO -Check that nothing is blocking the GPS antenna located behind the gauge assembly and recheck. Substitute a known-good navigation unit, and recheck.

VOICE GUIDANCE CANNOT BE HEARD, IS BROKEN UP, OR THERE IS STATIC

NOTE:

- **Make sure that the correct DVD color and version are installed.**
- **Check any official Honda service website for more service information about the navigation system.**
- **Check that the volume setting and voice feedback are turned ON.**
- **Check the connectors for poor connection or loose terminals.**
- **Before troubleshooting, make sure you have the navigation system 4-digit anti-theft code, then write down the audio presets.**
- **After troubleshooting, enter the navigation system anti-theft code, then enter the audio presets.**

1. Press the display unit SET-UP button.
2. Check the volume setting for the navigation system.

   Is it set to OFF?

   YES -Set the volume to an audible level.

   NO -Go to step 3.

3. Check the radio operation.

   Can you hear the radio?

   YES -Go to step 4.

   NO -Troubleshoot the audio system.

4. Go into the Diagnostic Menu and use the Navi System Link test (see **SYSTEM DIAGNOSTIC MODE**) to check the radio.

   Is the Radio icon red?

YES -Troubleshoot the audio system.

NO -Go to step 5.

5. Test the voice control switch (see **VOICE CONTROL SWITCH TEST**).

   Is voice control switch OK?

   YES -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

   NO -Replace the voice control switch (see **VOICE CONTROL SWITCH REPLACEMENT**).

VOICE CONTROL DOES NOT WORK/RESPOND

NOTE:

- **Make sure that the correct DVD color and version are installed.**
- **Check any official Honda service website for more service information about the navigation system.**
- **Check the connector for poor connection or loose terminals.**
- **Before troubleshooting, make sure you have the navigation system 4-digit anti-theft code, then write down the audio presets.**
- **After troubleshooting, enter the anti-theft code then enter the audio presets.**

Before assuming that a voice complaint is hardware related, ensure that the voice control system is being operated correctly.

- Make sure you are on the correct screen when trying to issue a voice command. For instance, the command "Find the nearest Italian Restaurant" only works on a Map screen.

  (See the Navigation System Manual for a complete list of allowed voice

commands for the information being displayed.)

- Close the windows, moonroof, and doors.
- Set the fan speed to low (1 or 2).
- Adjust the air flow from the air conditioning vents so that they do not blow against the microphone on the ceiling.
- Pause after pressing the TALK button, then give a voice command clearly in a natural speaking voice. If the system cannot recognize your command, speak louder.
- If the microphone picks up voices other than yours, the system may not interpret your voice commands correctly.
- If you speak a command with something in your mouth, or your voice is too husky, the system may misunderstand your command.
- Compare the system operation with a known-good vehicle. Have more than one person test the system operation. If the like known-good vehicle performs the same, if is a characteristic of the system.

1. Turn the ignition switch to ON (II).
2. Go into the Diagnostic Menu and use the Mic Level test under Functional Setup (see **FUNCTIONAL SETUP**) to check the operation of the TALK and BACK buttons.

   Are the TALK and BACK buttons operational?

   YES -Go to step 15.

   NO -Go to step 3.

3. Turn the ignition switch to LOCK (0).
4. Do the voice control switch test (see **VOICE CONTROL SWITCH TEST**).

   Is the voice control switch OK?

   YES -

   - 2-door model: Go to step 5.

- 4-door model: Go to step 10.

NO -Replace the voice control switch.

5. Disconnect the voice control switch 5P connector and navigation unit connector D (5P).
6. Check for continuity between body ground and navigation unit connector D (5P) terminals No. 4.

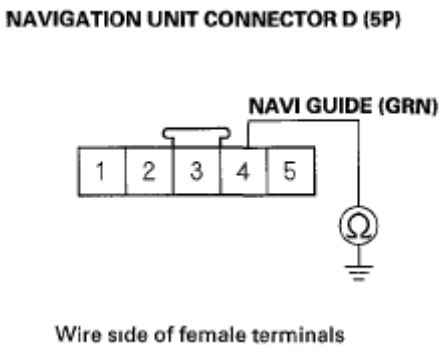


Fig. 25: Checking Continuity Between Body Ground And Navigation Unit Connector D (5P) Terminals No. 4
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Replace short to body ground in the wire between navigation unit and voice control switch, or replace the cable reel.

NO -Go to step 7.

7. Check for continuity between navigation unit connector D (5P) terminal No. 4 and voice control switch 5P connector terminal No. 2.

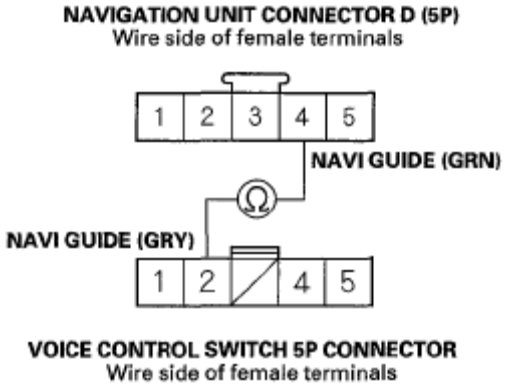

NAVIGATION UNIT CONNECTOR D (5P)
Wire side of female terminals
1 2 3 4 5
NAVI GUIDE (GRN)
NAVI GUIDE (GRY)
1 2 4 5
VOICE CONTROL SWITCH 5P CONNECTOR
Wire side of female terminals

Fig. 26: Checking Continuity Between Navigation Unit Terminal No. 4 And Voice Control Switch 5P Connector Terminal No. 2
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Go to step 8.

NO -Repair open in the wire between navigation unit and voice control switch, or replace the cable reel.

8. Disconnect navigation unit connector D (22P).
9. Check for continuity between navigation unit connector B (22P) terminal No. 6 and voice control switch 5P connector terminal No. 4.

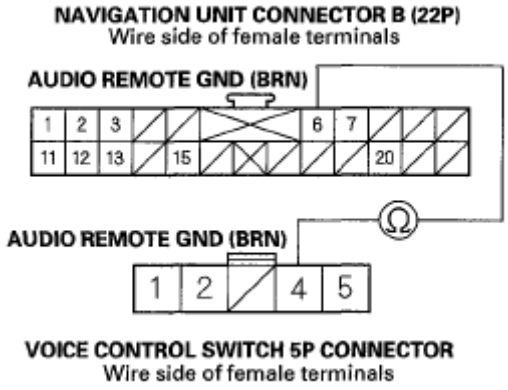

NAVIGATION UNIT CONNECTOR B (22P)
Wire side of female terminals
AUDIO REMOTE GND (BRN)
1 2 3 6 7
11 12 13 15 20
AUDIO REMOTE GND (BRN)
1 2 4 5
VOICE CONTROL SWITCH 5P CONNECTOR
Wire side of female terminals

Fig. 27: Checking Continuity Between Navigation Unit Terminal No. 6 And Voice Control Switch 5P Connector Terminal No. 4
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NO -Repair open in the wire between navigation unit and voice control switch, or replace the cable reel.

10. Disconnect the cable reel 20P connector and navigation unit connector D (5P).
11. Check for continuity between body ground and navigation unit connector D (5P) terminals No. 4.

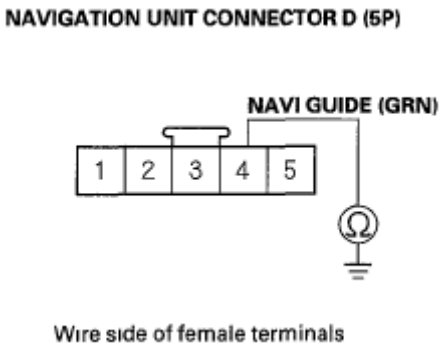


Fig. 28: Checking Continuity Between Body Ground And Navigation Unit Connector D (5P) Terminals No. 4
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Repair short to body ground in the wire between navigation unit and voice control switch, or replace the cable reel.

NO -Go to step 12.

12. Check for continuity between navigation unit connector D (5P) terminal No. 4 and cable reel 20P connector terminal No. 8.

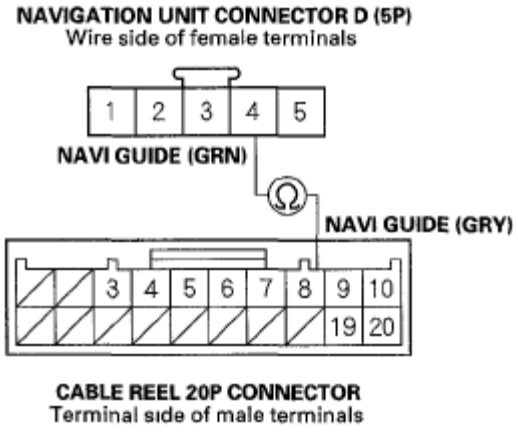

NAVIGATION UNIT CONNECTOR D (5P)
Wire side of female terminals
1 2 3 4 5
NAVI GUIDE (GRN)
NAVI GUIDE (GRY)
3 4 5 6 7 8 9 10
19 20
CABLE REEL 20P CONNECTOR
Terminal side of male terminals

Fig. 29: Checking Continuity Between Navigation Unit Terminal No. 4 And Cable Reel 20P Connector Terminal No. 8
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Go to step 13.

NO -Repair open in the wire between navigation unit and voice control switch, or replace the cable reel.

13. Disconnect navigation unit connector B (22P).
14. Check for continuity between navigation unit connector B (22P) terminal No. 6 and cable reel 20P connector terminal No. 10.

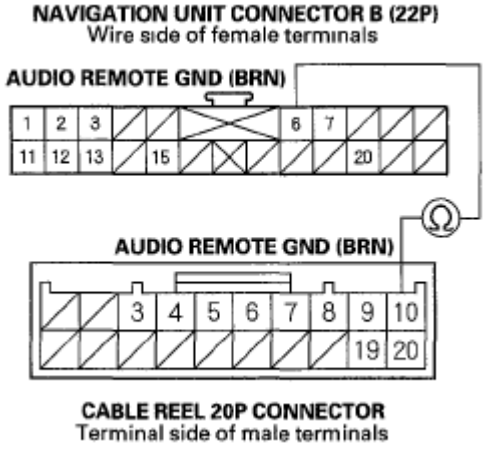

NAVIGATION UNIT CONNECTOR B (22P)
Wire side of female terminals
AUDIO REMOTE GND (BRN)
1 2 3 6 7
11 12 13 15 20
AUDIO REMOTE GND (BRN)
3 4 5 6 7 8 9 10
19 20
CABLE REEL 20P CONNECTOR
Terminal side of male terminals

Fig. 30: Checking Continuity Between Navigation Unit Terminal No. 6

And Cable Reel 20P Connector Terminal No. 10
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NO -Repair open in the wire between navigation unit and voice control switch, or replace the cable reel.

15. Use the Mic Level diagnostic under Functional Setup (see **FUNCTIONAL SETUP**) to check the operation of the microphone.

    Is the microphone operational?

    YES -Check the operation of the voice control system (see the Navigation System Manual).

    NO -Go to step 16.

16. Turn the ignition switch to LOCK (0).
17. Remove the moonroof switch and disconnect the microphone 3P connector (see **MICROPHONE REPLACEMENT**).
18. Disconnect navigation unit connector D (5P).
19. Check for continuity between body ground and navigation unit connector D (5P) terminal No. 2 and No. 5 individually.

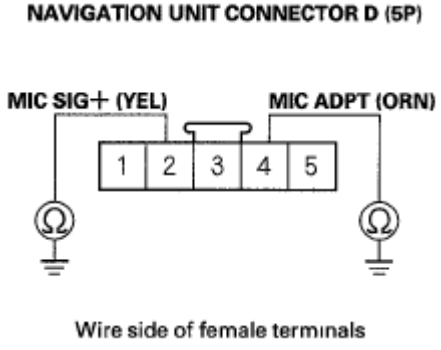


Fig. 31: Checking Continuity Between Body Ground And Navigation Unit

Connector D (5P) Terminal No. 2 And No. 5
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Repair short to body ground in the wire(s) between navigation unit and microphone.

NO -Go to step 20.

20. Check for continuity between navigation unit connector D (5P) according to the table.

TERMINALS CONTINUITY CHART

From terminal	To terminals
D2	D3, D5
D3	D5

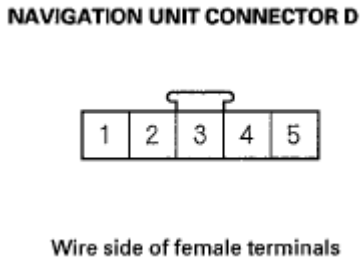


Fig. 32: Identifying Navigation Unit Connector D (5P) Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity between any of the terminals?

YES -Short in the wire(s) between the navigation unit and microphone. Replace the affected shielded harness.

NO -Go to step 21.

21. Check for continuity between navigation unit connector D (5P) and microphone 3P connector according to the table.

TERMINALS CONTINUITY CHART

Navigation unit connector	Microphone connector	Wire color
D1	2	BRN
D2	1	YEL
D5	3	ORN

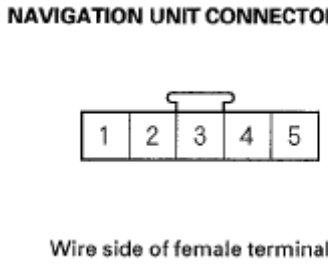


Fig. 33: Identifying Navigation Unit Connector D (5P) Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

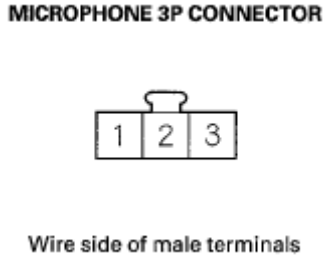


Fig. 34: Identifying Microphone 3P Connector Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Substitute a known-good microphone, then reconnect all of the connectors and recheck. If the symptom/indication goes away, replace the original microphone. If the symptom/indication is still present, replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NO -Repair open in the wire(s) between the navigation unit and microphone. Replace the affected shielded harness.

VEHICLE POSITION ICON CONSTANTLY LEAVES ROAD, MOVES ERRATICALLY, OR IS VERY FAR FROM ACTUAL POSITION

NOTE:

- **Make sure that the correct DVD color and version are installed.**
- **Check any official Honda service website for more service information about the navigation system.**
- **Check for aftermarket accessories.**

1. Check the GPS icon on the navigation picture.

   Is the GPS icon on the map screen?

   YES -Do the troubleshooting for GPS icon is white or not shown (see **GPS ICON IS WHITE OR NOT SHOWN**).

   NO -Go to step 2.

2. Go into the Diagnostic Menu, and use the Yaw Rate test (see **YAW RATE**) to check the yaw rate sensor.
3. Go into the Diagnostic Menu and use the Car Status test (see **CAR STATUS**) to check the vehicle speed pulse.

   Are the yaw rate sensor and vehicle speed pulse OK?

   YES -The problem may be a normal characteristic. Check to see if the problem occurs in the same place. If it does, the problem could be in the database. Compare to a known-good vehicle under the same conditions. If you can duplicate the problem, report it. Refer to the Customer Assistance section of the Navigation User's Guide, "Reporting Errors".

   NO -If the problem is the yaw rate sensor, replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**). If the problem is the vehicle speed pulse, troubleshoot the vehicle speed signal circuit.

DVD SCREEN ERROR MESSAGES

NOTE:

- **Make sure that the correct DVD color and version are installed.**

- **Check any official Honda service website for more service information about the navigation system.**
- **Check the Navigation System Manual for a list of common DVD screen error messages and the probable cause.**
- **Go into the Diagnostic Menu and use the Car Status test (see CAR STATUS) to check the status of the display.**

1. Check the DVD-ROM reading surface for scratches.

   Are there scratches?

   YES -Replace the DVD-ROM.

   NO -If the problem occurs occasionally when the system is cold, this is normal. If the problem occurs frequently when driving, replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

SYSTEM ALWAYS COMES UP IN IN-LINE DIAGNOSTIC MODE

1. When a navigation unit is powered up for the first time at the factory, the factory diagnosis screen (In Line Diag) appears. Normally the factory performs the steps necessary to verify proper operation and terminate the factory diagnostic. Until the proper confirmation sequence is performed, the screen will appear every time the vehicle is started.

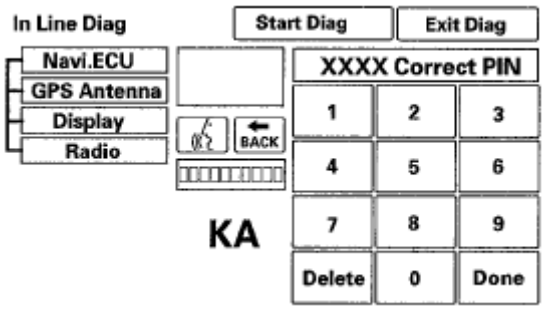


Fig. 35: Display Screen - In-Line Diagnostic Mode
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Follow the steps to prevent the screen from showing up in the future:
   - Hold down the buttons (Menu+Map/Guide+Cancel) for about 5 seconds (the Select Diagnosis Items screen will appear).
   - Hold down the Map/Guide button for 5-10 seconds (A screen with a Complete button, will appear).
   - Touch Complete, and then the Return button (the system may re-boot).
   - Restart the vehicle, and confirm normal operation by completing the "PDI of the navigation system" Service Bulletin.

DISPLAY DAY/NIGHT MODE DOES NOT WORK

NOTE:

- **Check the connectors for poor connection or loose terminals.**
- **Before troubleshooting, get the navigation system anti-theft code.**
- **After troubleshooting, enter the navigation system anti-theft code.**
- **Full brightness on the instrument panel brightness control with the head lights turned on causes the system to stay in the day mode, even when the lights are on.**

1. Make sure the instrument panel brightness control is not on full brightness. Turn the headlights on and adjust the dash brightness to the middle range.
2. Change the day/night mode under Set-up to AUTO and recheck.

   Does the display change to day and night modes when turning the headlights on and off?

   YES -The system is OK at this time.

   NO -Go to step 3.

3. Go into the Diagnostic Menu and use the Car Status test to check for an ILL signal (see **CAR STATUS**).

Is the ILL signal OK?

YES -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NO -Check the ILL+ circuit between the navigation unit and No. 14 (7.5 A) fuse in the under-dash fuse/relay box.

SYSTEM LOCKS UP OR FREEZES CONSTANTLY

NOTE:

- **Make sure that the correct DVD color and version are installed.**
- **Check any official Honda service website for more service information about the navigation system.**

1. Start the engine and turn the ignition switch to LOCK (0), then turn the ignition switch to ON (II).

   Does the system reboot?

   YES -The system is OK at this time.

   NO -Check the DVD for scratches or damage, and the navigation unit for water damage. If OK, go into the Diagnostic Menu and do all of the Unit Check tests (see **UNIT CHECK**). Also check for low battery charge or poor charging system performance.

VEHICLE ICON WANDERS ACROSS THE MAP WHEN DRIVING (DOES NOT FOLLOW A DISPLAYED ROAD) OR MAP OR VEHICLE ICON SPINS

NOTE:

- **This symptom is usually caused by a defective yaw rate sensor. Perform this diagnostic when the vehicle is cold and warm.**
- **Also refer to symptom troubleshooting for GPS ICON IS WHITE OR NOT SHOWN .**

1. Go into the Diagnostic Menu and use the Yaw Rate test (see **YAW RATE**).

Are the values correct?

YES -The system is OK.

NO -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

VEHICLE ICON MOVES BY ITSELF OR SPINS WHEN PARKED

NOTE:

- **Check the connectors for poor connection or loose terminals.**
- **Before troubleshooting, get the navigation system anti-theft code, then write down the audio presets.**
- **After troubleshooting, re-enter the anti-theft code, and re-initialize the navigation system, then enter the audio presets.**

1. Start the engine.
2. From the main menu, select places, then select any destination, and begin the trip.
3. With the vehicle parked, watch the vehicle icon on the display.

Does the vehicle position icon move by itself?

YES -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NO -The system is OK at this time.

NAVIGATION DISPLAY STAYS ON WITH IGNITION SWITCH OFF

NOTE:

- **Check the connectors for poor connections or loose terminals.**
- **Before troubleshooting, get the navigation system anti-theft code, then write down the audio presets.**
- **After troubleshooting, re-enter the anti-theft code, and**

re-initialize the navigation system, then enter the audio presets.

- **Check for aftermarket accessories that use the same power circuit. A feedback can cause this problem.**

1. Remove the key from the ignition.

   Does the navigation screen stay on?

   YES -Go to step 2.

   NO -The system is OK at this time.

2. The vehicle may have been used as a demonstration vehicle at an event like an auto show. In these events, power is often jumpered to the navigation system so that the ignition key is not needed in the vehicle. At the end of the show, the jumper wire may not have been removed. Check the navigation unit connector A (17P) for a non-factory jumper wire in series with the factory cable.

   Is there a jumper wire?

   YES -Remove the jumper wire, and re-test. Return the jumper wire to Tech Line.

   NO -Go to step 3.

3. Check if the audio unit works.

   Does the audio unit work with the ignition switch off?

   YES -Troubleshoot the ACC circuit for a short to power with another circuit.

   NO -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NAVIGATION CANNOT CONTROL AUDIO SYSTEM

1. Make sure the anti-theft code for the navigation system is entered.

2. Go into the Diagnostic Menu and use the Navi System Link test (see **SYSTEM DIAGNOSTIC MODE**).

   Is the Radio icon red?

   YES -Do the troubleshooting for the voice guidance cannot be heard (see **GPS ICON IS WHITE OR NOT SHOWN**).

   NO -Go to step 3.

3. Substitute a known-good navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**), and recheck.

   Can the navigation control audio?

   YES -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

   NO -Do the audio system troubleshooting.

NAVIGATION CANNOT CONTROL XM RADIO

- Review the audio system diagnostic article.
- If you can only tune to channels 000, 001, 174, and 247, make sure the audio unit is set to the channel mode (see owner's manual), if is set to channel mode, call XM satellite radio customer support and check the account activation status.

1. Substitute a known-good navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**), and recheck.

   Can the navigation control the XM radio?

   YES -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

   NO -Do the audio system troubleshooting.

NAVIGATION FREQUENTLY ASKS FOR ANTI-THEFT CODE AND NEEDS GPS INITIALIZATION

1. Measure the voltage between navigation unit connector A (17P) terminal No. 17 and body ground.

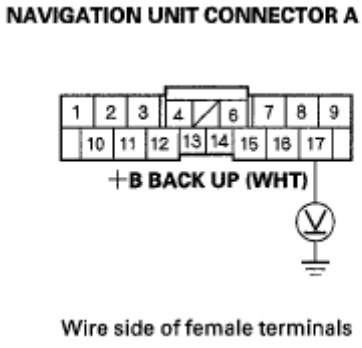


Fig. 36: Measuring Voltage Between Navigation Unit Connector A (17P) Terminal No. 17 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES -Go to step 2.

NO -Repair open in the wire between the under-dash fuse/relay box and the navigation unit.

2. Turn the ignition switch to ON (II).
3. Measure the voltage between navigation unit connector A (17P) terminal No. 14 and body ground.

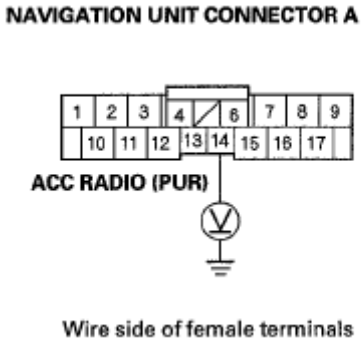


Fig. 37: Measuring Voltage Between Navigation Unit Connector A (17P) Terminal No. 14 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES -Go to step 4.

NO -Repair open in the wire between the under-dash fuse/relay box and the navigation unit.

4. Measure the voltage between navigation unit connector A (17P) terminal No. 9 and body ground, and between navigation unit connector C (12P) terminal No. 4 and body ground.

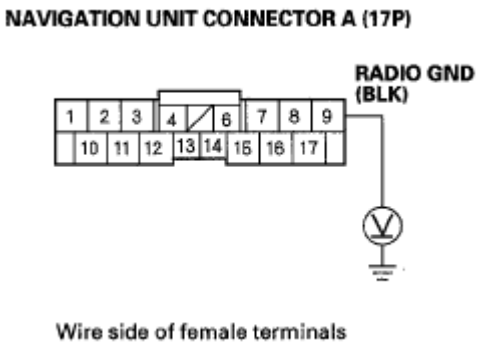


Fig. 38: Measuring Voltage Between Navigation Unit Connector A (17P) Terminal No. 9 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

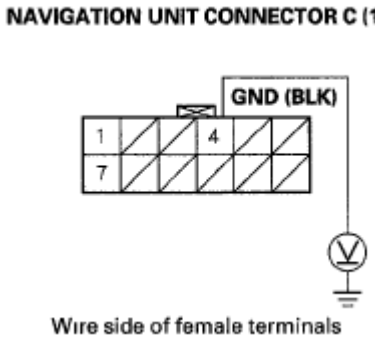


Fig. 39: Measuring Voltage Between Navigation Unit Connector C (12P) Terminal No. 4 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there less than 0.1 V?

YES -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NO -Repair open in the wire between the navigation unit and body ground (G504, G505).

OPEN/CLOSE FUNCTION OF THE DISPLAY DOES NOT WORK

NOTE: If the display's Open/Close button does not work, you must manually open the display to obtain the customer's navigation DVD, audio CD, and PC card (see CD, DVD, AND PC CARD REMOVAL/INSTALLATION).

1. Press the OPEN/CLOSE button.

   Does the display open and/or close normally?

   YES -The system is OK at this time.

   NO -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NAVIGATION DISPLAY WILL NOT CLOSE

1. Check the CD slot. Look for foreign objects, stuck CD, broken or sticking slot.

   Is the CD slot OK?

   YES -Go to step 2.

   NO -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

2. Check the PC card.

Is the PC card fully seated?

YES -Go to step 3.

NO -Reseat the card or remove it. If it still won't close, replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

3. Press the OPEN/CLOSE button.

   Does the display open and/or close normally?

   YES -The system is OK at this time.

   NO -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

NAVIGATION DISPLAY DOES NOT OPEN OR OPENS PART WAY

1. Press the OPEN/CLOSE button.

   Does the unit beep?

   YES -Go to step 2.

   NO -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

2. Press the OPEN/CLOSE button.

   Does the display open normally?

   YES -The system is OK at this time.

   NO -Replace the navigation unit (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).

SYSTEM DIAGNOSTIC MODE

START-UP PROCEDURE AND DIAGNOSIS MENU

1. Turn the ignition switch to ON (II).

   Press and hold the Menu, the Map/Guide, and the Cancel buttons. Keep them pressed for approximately 3 seconds. The display screen then goes directly to the Diagnostic Menu.

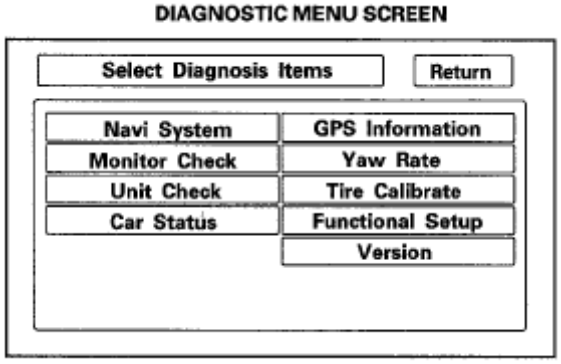


Fig. 40: Diagnostic Menu Screen Display
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. After the display changes to the Diagnostic Menu, select the item you want to check, and the test will begin. To return to the previous screen, select Return.
   - Navi System (Link)
   - Monitor Check
   - Unit Check
   - Car Status
   - GPS Information
   - Yaw Rate
   - Tire Calibrate
   - Functional Setup
   - Version

NAVI SYSTEM LINK

- This diagnostic step tests the cables connecting the navigation components. Ensure that the ignition switch is in the ON (II) position. When the diagnosis begins, you hear a bong sound. The system is in a Detecting mode, and is

waiting for all the items in white to be tested. This includes the voice control switch (TALK/BACK buttons), and the microphone. Press the TALK button on the steering wheel, and in a normal voice, say "testing". The Talk indicator on the screen should turn green, and the voice level indicator should move to at least the 6th bar to pass. Next, press the BACK button. The Cancel indicator should turn green.

- If all of the communication lines connecting the system components, and the TALK/BACK buttons/ microphone check out OK (all block diagram items green), then the OK indicator turns green.
- If there is a problem with the system, the faulty system component item turns red, and the screen will show NG in red. Use the troubleshooting index, and other diagnostic screens to help locate the problem.
- The indicator on the screen may not change until you cycle the ignition switch. After repairing the affected cable or system, repeat this diagnostic.

NOTE: Green boxes and green OK indicate that the communications lines (cables) are intact. This diagnostic does not necessarily imply that the individual components are functioning properly. For instance, the GPS antenna wire may be crushed, but still show as green. A road test, or other diagnostic may be necessary to find the problem.

- Select Return to return to the Diagnostic Menu, or the Exit Diag button to exit.

NOTE: The Mic Level indicator must reach the 6th bar or greater to pass the test.

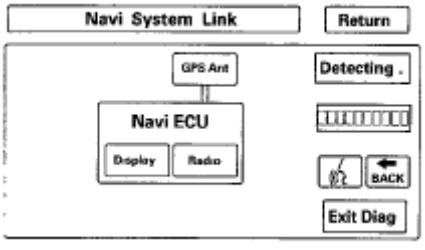


Fig. 41: Diagnostic Menu Screen Display - Navi System Link

Courtesy of AMERICAN HONDA MOTOR CO., INC.

MONITOR CHECK

Overview of navigation display

The illumination input from the gauge brightness control provides back lighting for the buttons surrounding the screen.

These screens allow troubleshooting of the navigation display. Select the item you want to troubleshoot, and follow the diagnostic instructions.

- RGB Color
- Gray Tone
- White Raster
- Black Raster
- Color Pattern
- Monitor Adjustment
- Touch Panel Check
- Touch Panel Calibration

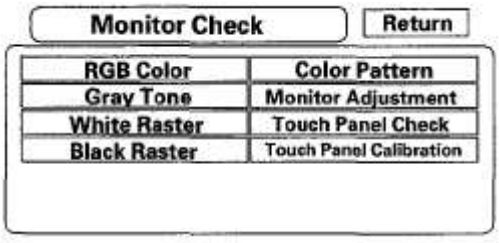


Fig. 42: Diagnostic Menu Screen Display - Monitor Check
Courtesy of AMERICAN HONDA MOTOR CO., INC.

RGB Color

This screen verifies that the navigation display is receiving the video (R, G, B and Composite sync) signals properly. The three primary colors should all be shown without distortion. The combination of all three should produce a central white section. If the picture has lines in it, or scrolls horizontally or vertically, and any of the colors are missing, troubleshoot for a Composite sync and color signal problem

(see **PICTURE HAS LINES/ROLLS/OTHER ISSUES OR IS AN ODD COLOR**).

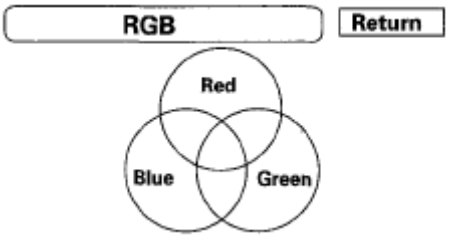


Fig. 43: Diagnostic Menu Screen Display - RGB Color
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Gray Tone

This screen looks for problems with contrast. You should be able to see the changes from bar to bar across the scale. If you can't see the shade changes from bar to bar, replace the navigation unit.

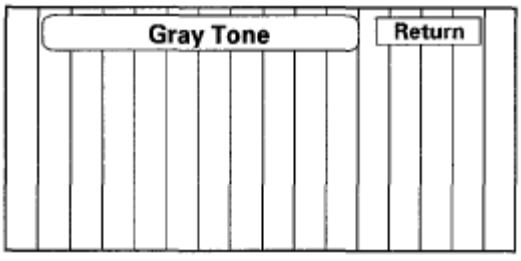


Fig. 44: Diagnostic Menu Screen Display - Gray Tone
Courtesy of AMERICAN HONDA MOTOR CO., INC.

White Raster

This diagnostic screen checks for pixels that may be dead (off). The entire display must be white. If pixels are dead, replace the navigation unit.

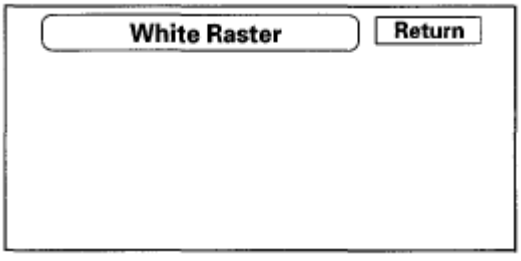


Fig. 45: Diagnostic Menu Screen Display - White Raster
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Black Raster

The entire display must be black. This diagnostic screen checks for pixels that may be stuck (on). If pixels are stuck on, replace the navigation unit.

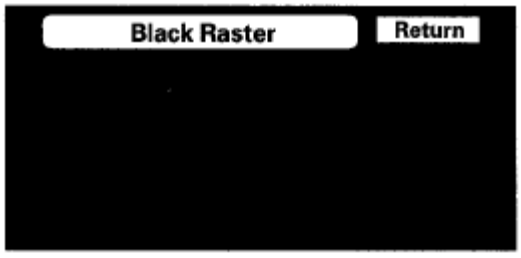


Fig. 46: Diagnostic Menu Screen Display - Black Raster
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Color Pattern

The chart below shows the colors being used for the Map and Menu screens. This is for factory use only. To check the color signal use the RGB test.

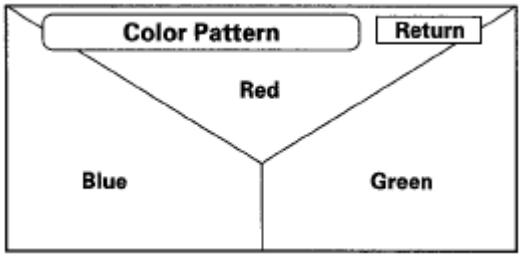


Fig. 47: Diagnostic Menu Screen Display - Color Pattern
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Monitor Adjustment

This allows you to center the navigation display. Use the joystick to move the picture up/down or left/right. It is unlikely that you will ever need to adjust the monitor position. The Default button will reset the display position to factory specifications. The factory default is 0, 0. The H-POS button is for factory use only.

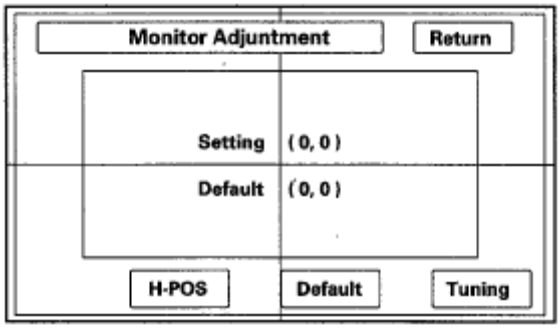


Fig. 48: Diagnostic Menu Screen Display - Monitor Adjustment
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Touch Panel Check

The panel touch sensing system consists of a touch sensitive resistive membrane covering the display. Contrary to other systems using infrared beams, the screen has to be physically touched to make it work. The display has the capability of 479 touch locations (left to right), and 233 touch locations (top to bottom). The upper left hand corner is position (0, 0) and the lower right hand corner is (479, 233) as displayed. Touching anywhere on the screen will display the coordinate of the location, and cause the place you touch to display a + icon. If any area of the screen either doesn't respond, or responds at some other location when touched, then replace the navigation unit.

NOTE: Unlike earlier screens that used infrared sensors, direct sunlight will not affect this test.

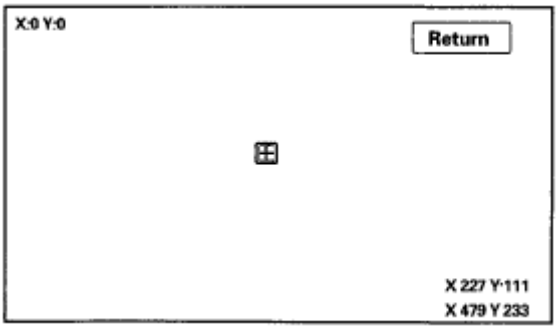


Fig. 49: Diagnostic Menu Screen Display - Touch Panel Check
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Touch Panel Calibration

The display screen uses a touch sensitive membrane. This means that every location of the entire surface of the display is touch sensitive. This diagnostic allows alignment of these touch locations with the location of the buttons images on the screen.

Normally this should never need adjustment, and is used only to adjust the touch locations for parallax (the touch locations appear different when viewed at an angle). However, if an adjustment is necessary, follow this procedure:

- The screen consists of the + button icons. Touch the center of the five + buttons on order 1-5.
- To store any change you make, touch the Set button.
- Use the Return key to exit the diagnostic.

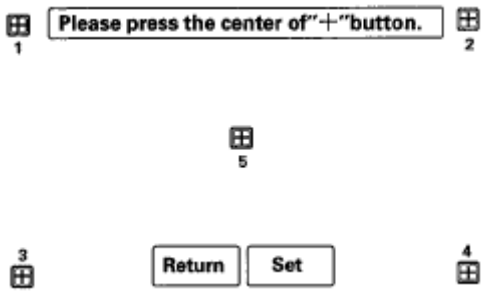


Fig. 50: Diagnostic Menu Screen Display - Touch Panel Calibration
Courtesy of AMERICAN HONDA MOTOR CO., INC.

UNIT CHECK

Select the item you want to check, and the test starts.

- Display
- Radio
- Navi ECU
- PC Card Info
- Hard Key

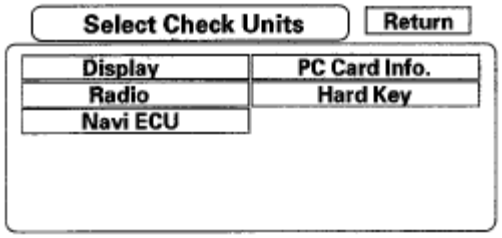


Fig. 51: Diagnostic Menu Screen Display - Unit Check
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Display

This performs additional checks on the communication bus between the navi CPU and the display. In addition, the internal electronics and touch screen functionality are confirmed.

If the connection is NG, replace the navigation unit.

- Connection verifies internal communications.
- Version represents the software version for the display.

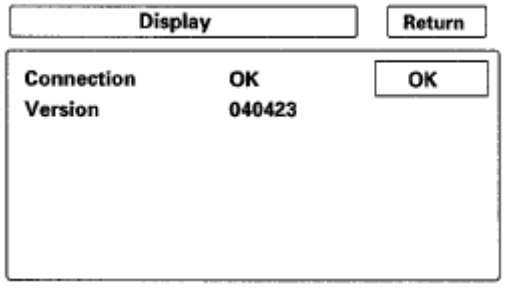


Fig. 52: Diagnostic Menu Screen Display
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Radio

This diagnostic screen checks the internals of the radio (AM and FM) and CD player. If NG, replace the navigation unit.

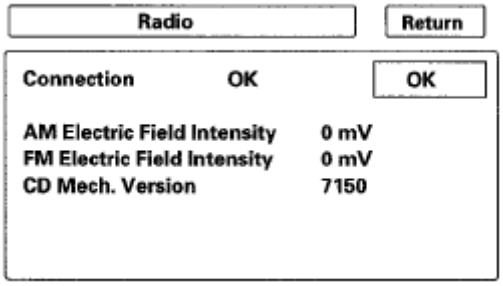


Fig. 53: Diagnostic Menu Screen Display - Radio
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Navi ECU

This screen looks for problems with the navigation unit. When you initiate this diagnostic, the navigation unit may delay up to a minute while the diagnostic runs.

- If V-RAM or D-RAM is NG, then replace the navigation unit.
- If GPS indicates NG (ANT), then check the entire GPS antenna wire from the navigation unit to the antenna. If the wire is crushed or damaged, try a known-good antenna. If this diagnostic reads OK, then order a new GPS antenna. If the diagnostic still reads NG (ANT), then replace the navigation unit.
- DVD ROM represents the database version on the DVD. You can also find this information in setup by selecting System Information.
- Serial No. should be the same as the serial number found on the underside of the navigation unit. You need this number to obtain the security code from the Interactive Network system.
- Mem Clear is for factory use, and should never be used unless instructed by the factory. Accidental selection will erase the customer's personal data, PINS, and settings. If selected, a popup box appears asking if you want to clear the memory. If so, select Yes.

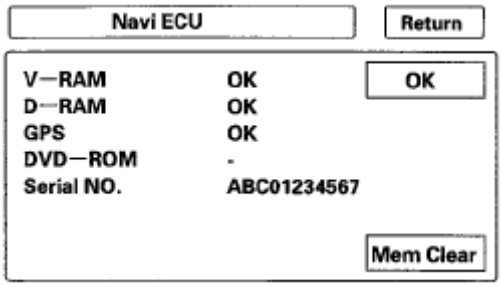


Fig. 54: Diagnostic Menu Screen Display - Navi ECU
Courtesy of AMERICAN HONDA MOTOR CO., INC.

PC Card info

There is no PC card in the PC slot, and the screen should say, "PC card is not inserted".

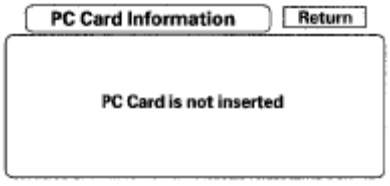


Fig. 55: Diagnostic Menu Screen Display - PC Card Info
Courtesy of AMERICAN HONDA MOTOR CO., INC.

If the factory provides a PC card and instructs you to insert a card, then the screen displays the Manufacturer, and Product Name as shown in the following screen. Touch the FILES button to see the contents of the card.

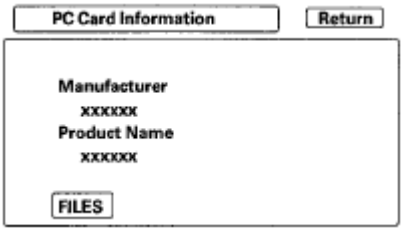


Fig. 56: Diagnostic Menu Screen Display - FILES Button
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Hard Key

This diagnostic screen checks the status of each of the hard buttons surrounding the navigation display. When you press each hard button, the corresponding item on the screen should flash blue. Touch the return key, or press and hold the joystick to exit.

NOTE: It is normal for the VOL (+, -) CH (+, -) and MODE button to be inactive.

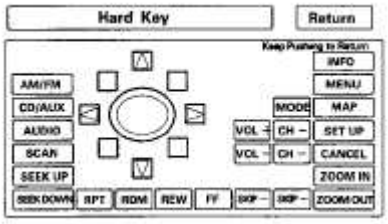


Fig. 57: Diagnostic Menu Screen Display - Hard Key
Courtesy of AMERICAN HONDA MOTOR CO., INC.

CAR STATUS

Use this screen to confirm that navigation unit is properly receiving input signals. Signals equal to (0) are OFF, and signals equal to (1) are ON. If the value on the display does not match the actual vehicle status, then check the wire carrying the signal.

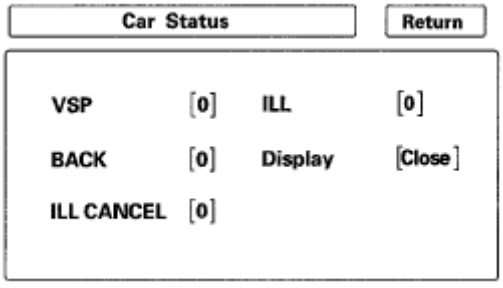


Fig. 58: Diagnostic Menu Screen Display - Car Status
Courtesy of AMERICAN HONDA MOTOR CO., INC.

- VSP-Vehicle Speed Pulse from ECM/PCM connector A (Navigation unit connector A (17P) terminal No. 13)
  a. OFF (0) when vehicle is not moving
  b. ON (1) when vehicle is moving

The VSP comes from the ECM/PCM as a dedicated signal. Internally, the navigation unit compares the actual VP on the map against street data to adjust the pulse to speed scaling factor.

- BACK-Reverse indication from taillight relay (Navigation unit connector C (12P) terminal No. 7)

a. OFF (0) when shift lever is in any position other than reverse
b. ON (1) when shift lever is in reverse

The Back signal is used by the navigation unit to allow the map screen to show the VP moving backwards when in reverse and to trigger the optional rear view camera. This signal is needed because the Speed Pulse does not provide any directional information to the system.

- ILL CANCEL
  a. OFF (0) when the dash lights brightness control button is less than 90 % brightness with the headlights turned on.
  b. ON (1) when the dash lights brightness control button is more than 90 % brightness with the headlights turned on.
- ILL-Illumination Indication (Navigation unit connector A (17P) terminal No. 10)
  a. OFF (0) when parking lights, or headlights are off
  b. ON (1) when parking lights, or headlights are on

The navigation unit uses the signal to determine whether to put the navigation screen into the Day or Night brightness mode. (Setup screen 1)

- Display-this displays the current position of the display
  a. (Close) when the display is closed
  b. (Open) when the display is open

The navigation unit has a microswitch to detect this. If open is indicated when the display is closed, replace the navigation unit.

GPS INFORMATION

This screen shows the current status of GPS reception. The circular diagram shows the current location of the GPS satellites (yellow balls) as they would appear in the sky. The outer circle represents the horizon (0 degrees elevation). The middle and inner circles represents 30 and 60 degrees respectively. The very center of the diagram (90 degrees elevation) is directly overhead. Nearby obstructions, like tall

buildings, will block satellites in that direction. That is why it is necessary to be in an open area to effectively troubleshoot GPS reception issues. The satellites shown on the diagram correspond to the PRN number in the GPS Details screen. There are always 24 active GPS satellites in orbit. Because satellites fail, and have to be removed from service, spares are always parked in orbit, ready to be activated. This is why the PRN (satellite ID number) can be greater than 24.

NOTE:

- **To use this screen for troubleshooting, the vehicle should be outside, away from buildings, tall trees, and high-tension wires for at least 10 minutes with the engine running.**
- **Metallic window tinting on the front or side window or after-market electronic accessories mounted near the navigation unit, GPS antenna, or navigation display can interfere with GPS acquisition.**
- **The Number of Satellites box shows the number of acquired satellites (maximum of 12). It should contain 4 or more icons. If not, troubleshoot for GPS icon is white or not shown (see GPS ICON IS WHITE OR NOT SHOWN).**
- **The Current Position shows latitude, longitude, and elevation (in meters). If there are less than 4 satellites, the elevation can be grossly inaccurate.**
- **The Date/Time field shows the current date, and also a time that includes daylight savings and other offsets entered by the customer in Setup function Adjust Time Zone/Clock.**

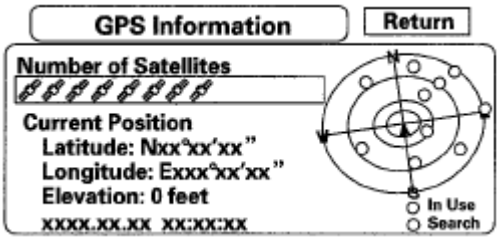


Fig. 59: Diagnostic Menu Screen Display - GPS Information

Courtesy of AMERICAN HONDA MOTOR CO., INC.

NOTE: Push and hold the Map/Guide button, and the dots on the diagram are replaced with the PRN # (satellite numbers). These numbers correspond to the numbers in the PRN column on the GPS details screen.

GPS DETAIL

By pressing and holding the MENU button for 10 seconds, a GPS Detail screen appears. This screen displays real time incoming satellite positional data. Most of the information shown on this screen is for factory use, however some of the data can indicate partial GPS signal interference.

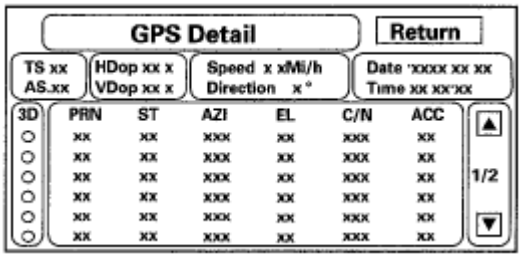


Fig. 60: Diagnostic Menu Screen Display - GPS Detail
Courtesy of AMERICAN HONDA MOTOR CO., INC.

- The box TS/AS and HDop/VDop is for factory use.
- The Speed and Direction information is updated in real time when driving, and can be used to detect intermittent speed sensor problems.
- The Date/Time Information is the same as in Setup screen 2 Adjust Time Zone/Clock.
- If the 3D icon is shown above the yellow dots, this implies that at least 4 satellites are available for map positioning, and the GPS indicator on the map screen will be green. See the **GLOBAL POSITIONING SYSTEM** detailed explanation in the System Description .
- If the row of data in the table below begins with a yellow dot, the AZI and EL fields can be used to locate each satellite PRN # on the circular GPS diagram (see prior screen).

NOTE: The data shown in the GPS Detail screen is an example only.

GPS DATA CHART

Column	Description	Problem indication
3D	Active satellites (Yellow Dot)	If 3D is missing follow GPS icon is white or not shown (see **GPS ICON IS WHITE OR NOT SHOWN**).
PRN	The satellite ID number	
ST	The status: 0 = cannot view or searching, 2 = acquiring	If all 0, then, follow GPS icon is white or not shown troubleshooting (see **GPS ICON IS WHITE OR NOT SHOWN**).
AZI	Azimuth, the angle (0-360) clockwise from north	
EL	Elevation from the horizon (90 deg is overhead)	
C/N	N/A	Healthy signal is 49-52, no signal: 27-33
ACC	N/A	

YAW RATE

This diagnostic checks the yaw rate sensor in the control unit. This device detects when the vehicle turns, and repositions the vehicle position icon on the map screen. For more detailed information, see **YAW RATE SENSOR** theory of operation under System Description.

- Sensor indicates the voltage output from the yaw rate sensor. It should indicate about 2.500 V when stopped.
- Offset is the reference voltage or standard within the yaw rate sensor. It also should indicate about 2.500 V when stopped.
- A sensor output voltage LOWER than the Offset voltage indicates that the vehicle is turning to the right.

A sensor output voltage HIGHER than the Offset voltage indicates that the vehicle is turning to the left.

- The yaw rate offset and sensor should both indicate about 2.500 V when stopped. If either reads zero or 5.000 V, replace the navigation unit.
- The yaw rate offset and sensor should be within +/- 0.01 V of each other when stopped. The sensor value should change relative to the offset as the car is turned while driving. If not, replace the navigation unit.

Example: Vehicle stopped

VEHICLE STOPPED SPECIFICATION

Normal		**Abnormal**	
Offset	2.526 V	Offset	2.526 V
Sensor	2.516-2.536 V	Sensor	2.623 V

Example: Vehicle turning

VEHICLE TURNING SPECIFICATION

Normal		**Abnormal**	
Offset	2.526 V	Offset	2.526 V
Sensor	2.678 V (right turn) 2.478 V (left turn)	Sensor	2.623 V (no change on turns)

The settings CCW Cal Factor, CW Cal Factor, and Set are for factory use only. THIS SHOULD NEVER BE USED.

NOTE: Do not try to adjust the yaw rate sensor without instructions from the factory. See next paragraph for tuning.

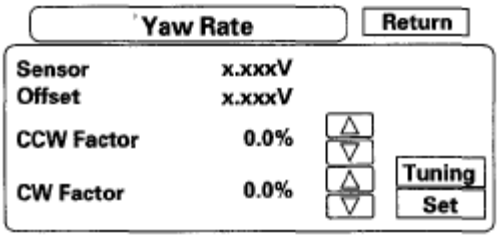


Fig. 61: Diagnostic Menu Screen Display - Yaw Rate
Courtesy of AMERICAN HONDA MOTOR CO., INC.

YAW RATE TUNING

This diagnostic allows you to graphically display problems with the yaw rate sensor.

- The ANG-Disp value accumulates any differences between the offset, and sensor voltages (see Yaw Rate diagnostic). When the sensor is healthy, the random changes in these two voltages generally cancels out, so the value is 0. However if one voltage is consistently higher than the other, then the ANG-Disp value accumulates the constant change.
- The Reset button temporarily clears the angular accumulation (ANG-Disp), and clears the display dots.
- Do not touch the CCW or CW, or Set buttons. These are used for factory setup only.

For serious problems with the sensor, the stationary test usually confirms whether the sensor is defective. For yaw rate issues related to driving, perform the road test described below.

1. Stationary test: If the-VP icon spins in place and the ANG-Disp value slowly increases or decreases in value, the yaw rate sensor is defective. Replace the Navigation unit.
2. Road test: Drive the vehicle on a very straight road. Enter the diagnostic mode, select Yaw rate, and touch the Tuning button. While driving down a straight road, the white dots should trace a straight line across the screen. However, if you are driving on a straight road, and you notice the dots constantly dropping down or heading up as you drive, the navigation unit's yaw sensor is defective.

You can touch Reset to clear ANG-Disp, and dotted line.

3. If either test fails, please enter "Yaw rate sensor defective" for the problem description, on the "Navigation core return form".

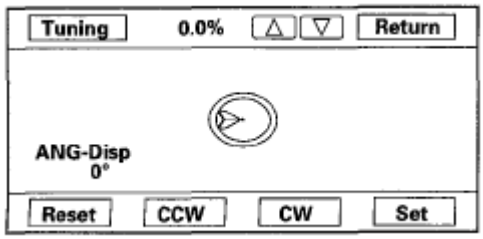


Fig. 62: Diagnostic Menu Screen Display - Yaw Rate Tuning
Courtesy of AMERICAN HONDA MOTOR CO., INC.

TIRE CALIBRATION

As the vehicle moves, the navigation system receives speed pulses from the ECM/PCM. These pulses are converted using a conversion factor to a mph speed that moves the vehicle position (VP) on the map. The navigation system has an internal tuning function that generates and refines this factor based on actual driving. The Level indicates the status of the tuning. At navigation initialization, it begins at 0, and increases to 10 as the navigation system is used.

- The Auto Tuning is factory set to ON, and should remain on.
- The Study indicates the tuning status. If it is less than 10, the unit is still calibrating.
- The Tire-Cal. Tuning and Set should not be used. It is for factory use only.

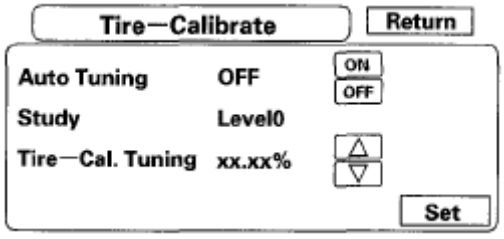


Fig. 63: Diagnostic Menu Screen Display - Tire Calibration
Courtesy of AMERICAN HONDA MOTOR CO., INC.

FUNCTIONAL SETUP

Select the item you want to check.

- Log Data
- GPS Send Time
- Demo Mode
- Mic Level
- Solar Angle
- Save Users Memory ('07-08 models)

'06 model

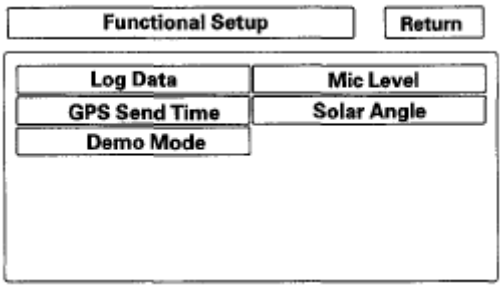


Fig. 64: Diagnostic Menu Screen Display - Functional Setup (06 Model)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

'07-08 models

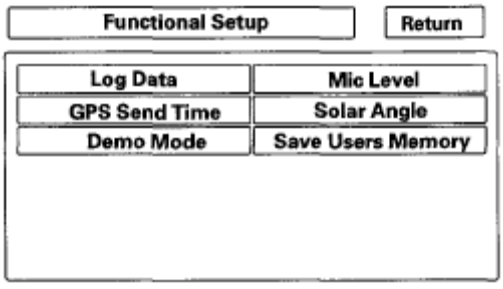


Fig. 65: Diagnostic Menu Screen Display - Functional Setup (07 Model)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Log Data

This screen allows the factory to collect log data to troubleshoot navigation system issues.

- There is no card in the PC card Slot, the screen appears as:

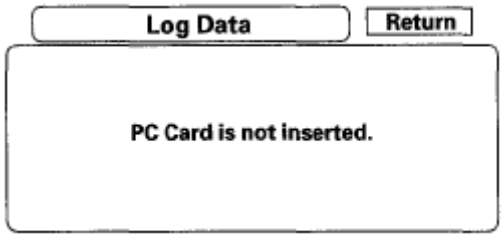


Fig. 66: Diagnostic Menu Screen Display - Log Data
Courtesy of AMERICAN HONDA MOTOR CO., INC.

- However, if the factory provides a PC card, insert it into the card slot (label side up). Follow the factory logging VD data procedure for gathering test data and properly ending the test.

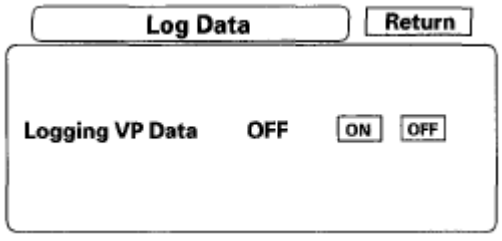


Fig. 67: Diagnostic Menu Screen Display - Log Data
Courtesy of AMERICAN HONDA MOTOR CO., INC.

GPS Send Time

This screen is for factory use only. It allows adjustment of the GPS time. This display updates in realtime.

- GPS Time is the time as received from the GPS satellites. It is in Greenwich Mean Time (GMT).
- Date, Hour, Minute, and Set should not be used.

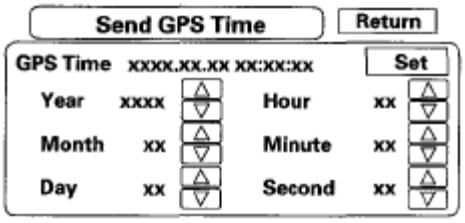


Fig. 68: Diagnostic Menu Screen Display - GPS Send Time
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Demo Mode

This screen allows the navigation system to drive a route, when the vehicle is stationary. Typical applications include auto shows, and other events. This feature allows a visitor to enter a destination, and see the system drive to the destination. No speed signal is needed.

- To initiate the mode select ON.
- Changing the speed rate in ms (milliseconds) is optional, and represents the time between updates of the VP (vehicle position) movement.
  - When you increase the rate, the VP slows down because it is updated (moved) at a slower rate.
  - When you decrease the rate, VP is faster because it is updated (moved) more frequently.
  - 1500 ms is VP at its slowest in demo mode.
  - 150 ms is VP at its fastest in demo mode (Default).
- At key off, the setting automatically returns to the default of Off.

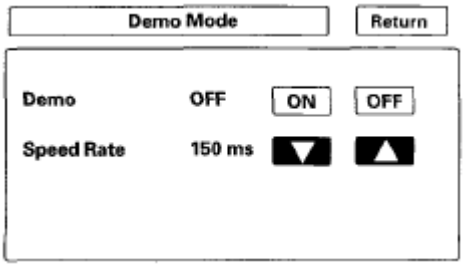


Fig. 69: Diagnostic Menu Screen Display - Demo Mode
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Mic Level

This diagnostic screen allows you to independently test the microphone and the TALK and BACK buttons. They are used to activate the voice control system. The microphone is located near the map light in the ceiling. It is directional, and works best if the voice is coming from the drivers seat.

- Press the TALK button on the steering wheel, and in a normal voice say "testing". The TALK indicator on the screen should momentarily turn green, and the text "Now Recording..." should appear in yellow. If the Mic Level indicator on the screen does not briefly turn green, then check the wiring from the TALK button to the navigation unit.
- If there is no Mic Level movement when you speak, then you should check the wire running from the microphone to the navigation unit.
- If the mic level bar is full or almost full without you speaking or other back ground noise, replace the microphone and recheck.
- Press the BACK button on the steering wheel. The Cancel indicator on the screen should momentarily turn green. If it does not briefly turn green, then check the wiring from the steering wheel BACK button to the navigation unit.

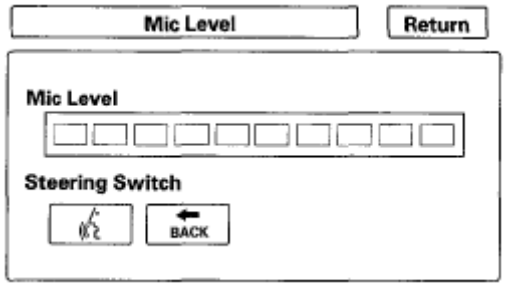


Fig. 70: Diagnostic Menu Screen Display - Mic Level
Courtesy of AMERICAN HONDA MOTOR CO., INC.

NOTE: If the radio is off, and there is movement in the indicator- even without speaking, ensure that the vents are not blowing on the microphone.
This should resolve voice control complaints such as:

- **Sometimes the system does not understand my**

commands.

- **I have to shout at the navi for a command to be recognized.**
- **The system just says "pardon".**

SOLAR ANGLE

This screen graphically displays the sun's position as determined by GPS.

This screen is for factory use only, and allows simulation of this feature for development purposes.

- The manual tuning button should always be OFF
- The Angle is the angle that the sun (shown with the red dot) is above the horizon.
- The vehicle value represents the angle, clockwise from North, to the direction that the vehicle position (VP) icon is pointing (always points straight up).
- The direction value is the angle, measured clockwise from the VP (straight up) to the suns position.
- The reliability ranges from 1 to 3, and represents the accuracy of the Vehicle Position relative to the sun.

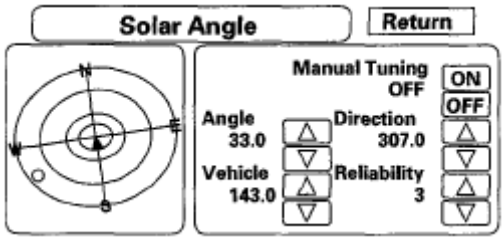


Fig. 71: Diagnostic Menu Screen Display - Solar Angle
Courtesy of AMERICAN HONDA MOTOR CO., INC.

VERSION

This screen displays the current version of the program, and allows the loading of a new version of the program either from a CD/DVD or from a PC card.

The Program Flash version should always be greater than or equal to the Program Disc version. IPL, APL, DBOOT, and system ucomare for factory use only.

The Model code is SNA for the 4-door and SVA for the 2-door, and is for factory use only. This code is stored on a chip in the navigation unit. Therefore, every model has a unique part number for the navigation unit.

NOTE: If any model number other than SNA or SVA is displayed, replace the navigation unit with the correct part. The model code tells the navigation unit what software to load off the DVD.

Do not use Download, unless instructed to do so by the factory.

4-door

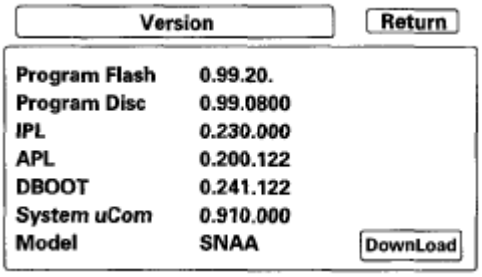


Fig. 72: Diagnostic Menu Screen Display - Version (4-Door)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2-door

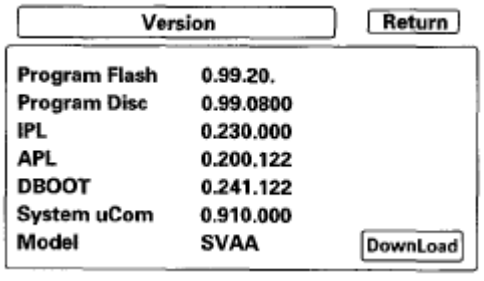


Fig. 73: Diagnostic Menu Screen Display - Version (2-Door)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

SAVE USERS MEMORY

When replacing the navigation unit, this function allows the dealer to transfer the customer's personal data td the new navigation unit. The transferred information includes their Setup settings, and personal addresses. The dealer inserts a PC card to the navigation unit, and then selects the Save Users Memory function. The two functions in this diagnostic screen are EXPORT and IMPORT. EXPORT saves the customer's data to the PC card, and IMPORT moves the PC card files to the new navigation unit.

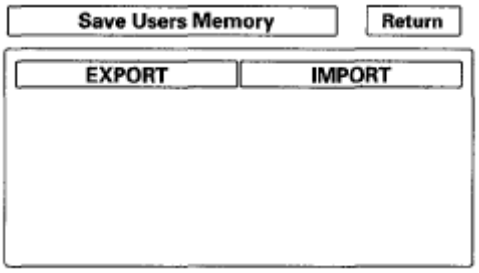


Fig. 74: Diagnostic Menu Screen Display - Save Users Memory
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Before starting this function, see the **PC CARD FAQS** for information regarding PC cards, and the use of this function.

1. Select EXPORT button to move the customer's data from the original navigation unit to the PC card. Select YES on the Export User Data Confirmation screen. The process takes only a couple of seconds. The system stores two files on the card.

NOTE: If the EXPORT button is grayed out, check the PC card's edge connector, and the pins inside the navigation unit (with a flashlight) for damage.

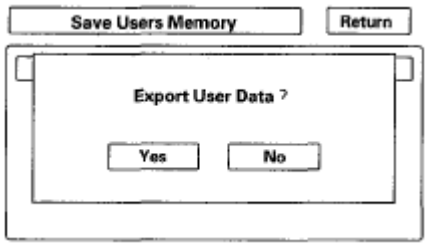


Fig. 75: Diagnostic Menu Screen Display - Save Users Memory
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. After installing the customer's original DVD in the new navigation unit, allow the system to boot up. Insert the PC card in the new navigation unit and enter the Save Users Memory in the navigation system diagnostic mode.
3. Select IMPORT button to move the two files stored by the Export process from the PC card to the new navigation unit. Select YES on the Import User Data Confirmation screen. When the transfer is finished (a few seconds) the system will automatically reboot. After the system reboots, remove the PC card from the PC card slot.

NOTE: If the IMPORT button is grayed out, check if the Model and the Program Flash shown on the Version screen are the same.

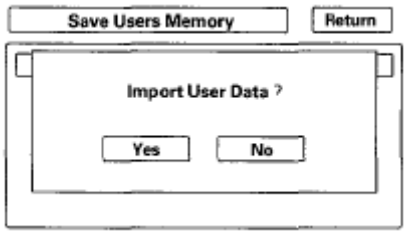


Fig. 76: Diagnostic Menu Screen Display - Save Users Memory
Courtesy of AMERICAN HONDA MOTOR CO., INC.

PC CARD FAQS

PC CARD FAQs REFERENCE

Question	Answer
Where do we buy the flash memory or adaptors, and what do we ask for?	You need a PCMCIA type II adaptor and a flash memory chip. You can purchase them at a computer, or office supply store. The card will have the same size and shape as the PC card in the HDS. Adaptors that accept multiple flash types are not recommended.
What memory flash	The flash memory devices that have been tested

chips will work with what adaptors?	include Compact Flash (CF), and ATA style (like the card in the HDS). Other card types and flash memory chips may work, but have not been tested.
What capacity card do I need for this function?	A memory chip with capacity of 64 MB to 2 GB will work. The two files moved to the PC card during export are less than a Megabyte in size.
Should the dealer have a dedicated PC card for the Export and Import navigation function?	Yes, treat the PC card as a dedicated special tool that should be used anytime the owner of an '07 or later vehicle needs their navigation personal files transferred to a new navigation unit.
What device can I use to maintain the PC card, and delete files	Any computer store sells USB style card readers that accept the PC card, and allow you to perform file maintenance on your PC card. Most laptops will also accept the PC card.
Can we move the customer's data to different models?	No, the files are model specific and will only load into a navigation unit with the same part number.
Can we move the customer's data to the same vehicle with a different software version?	The customer's files can only be transferred to a new navigation unit, if the Model and the Program Flash shown on the Version screen are the same. Files cannot be transferred to the different model and different versions.
Will other files on the PC card like images or music files prevent the Export/Import function from working?	No, the system simply adds two small files that are recognized by the new navigation unit when performing the import function. However, it the PC card is full, the Export function won't work correctly.
Do I have to delete the files on the PC card after each transfer of the customer's data?	After the transfer of customer data to the new navigation unit, the files remain on the PC card. Since this is confidential information, we recommend that you delete these files after each use. Please note that each time you export navigation files of the same model and version, the files are overwritten. Over time the PC card will accumulate

	two files for each version of the 8 or so Honda navigation models.
What format should be used if the PC card needs reformatting?	It is unlikely that the PC card will ever need formatting, however the FAT file system should be used.
I can't enter the navigation diagnostic mode to do the Export/Import function. How can I transfer the customer's data?	Some internal navigation unit ECU failures may make it impossible to use the Export/Import function.
Why wont the Export or Import functions work? What do I check as part of troubleshooting?	• The card may not be fully inserted into the slot. Eject the PC card, and inspect for warping or damage to the edge connector. Never use excessive force to insert a PC card. This can result in damage to the pins in the rear of the slot. • The PC card may not contain files that are recognized by the new navigation unit. Navigation data can only be transferred between navigation units with the same Model code, and with the same navi Program flash version. • The flash memory chip type may not be accepted by the system. Only Compact Flash and ATA cards have been tested. • The card's PCMCIA adaptor may be preventing a known-good PC card from playing. Avoid multi-slot type PCMCIA adaptors that accept several different flash memory types. • The card may be full and as a result the files are stored, but without any data. Export and import appear to function, but move nothing. Delete unused files from the PC card. • There may not be any files on the PC card. If the

	PC card has a write protection switch, make sure it is turned off before attempting to use the Export function. • Although flash memory chips are reliable, occasionally they develop bad sectors or other formatting errors that prevents them from accepting files. The PC card should be reformatted using the FAT format. • The PC card may have been formatted using the format NTFS. Only the FAT format is accepted by the system. • Hard Disc Drive (HDD) cards may not work properly in the system and can overheat or quit functioning, particularly in a hot vehicle. They are not recommended. • Before performing the Import function, ensure that the customer's original DVD is loaded into the new navigation unit and working properly.

ERROR MESSAGE TABLE

ERROR MESSAGE CHART

Screen Error Message	Solution
Navigation system is unable to acquire a proper GPS signal.	Make sure there is nothing on the dashboard blocking the GPS antenna. If not, move the vehicle to an open space away from tall buildings, trees, etc. After-market devices can affect the GPS reception.
Navigation is open or No DVD disc installed. Please check system.	Make sure the correct white-labeled navigation DVD is installed with the label side up and the navigation display is closed.
DVD reading error (incorrect DVD disc) place consult your dealer.	Verify correct color (white) DVD installed.

Display temp is too high. System will shut down until display cools down.	This message will appear briefly when the display temperature is too high, and the display will turn off until the temperature cools down. The system will turn back on when the display cools down.
Outside temperature is low, system will take a while to start up.	The temperature is below -30 °C and the navigation ECU has difficulties reading the DVD. The system will start up when the temperature warms up.
DVD disc reading error (unformatted), please consult your dealer.	Check the DVD source for deep scratches or other damage. Make sure you are using an official Honda navigation DVD (white in color). The system cannot read other mapping databases or video DVDs. Check online for any service publications to update the navigation system.
Route has not been completed. Please try again from a different location.	Routing to or from a place (new area) that is not in the database. Try planning a different route to or from a different location.
No alternate route found. Original route will be guided.	No alternate route method was found. The original route will be used.
This destination cannot be found in database.	The destination was not found in the database. Try another destination nearby, or select the destination with the joystick.

CD, DVD, AND PC CARD REMOVAL/INSTALLATION

If the display will not open, use this procedure to manually open the display and remove the CD, DVD, and or the PC card.

1. Remove the navigation unit from the vehicle (see **NAVIGATION UNIT REMOVAL/INSTALLATION**).
2. On the bench, carefully pull the display (A) straight out (about 1/2 inch).

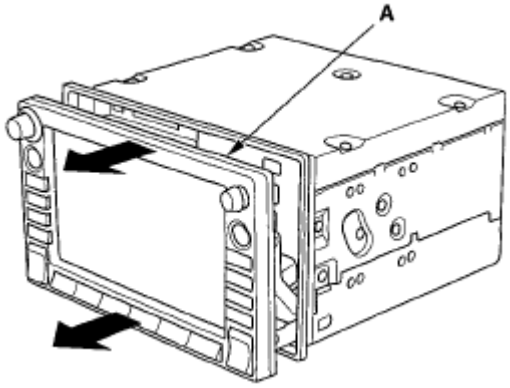


Fig. 77: Identifying Display
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Fold down the display as shown in the diagram below.

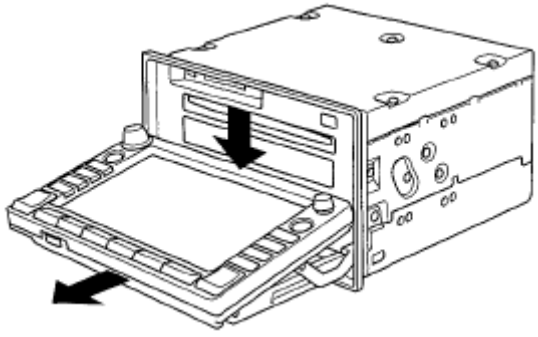


Fig. 78: Folding Down Display
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Push the PC card eject button (A) to eject the customer's PC card (if installed). Power is not required for this function.

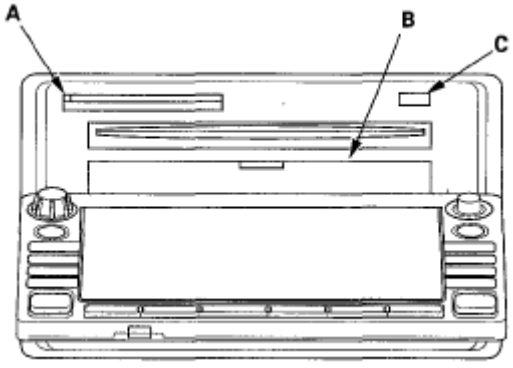


Fig. 79: Identifying PC Card Eject Button And Plastic Cover
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Open the plastic cover (B) for the navigation DVD slot. Do not remove the plastic cover.
6. With the display open, temporarily reconnect the unit in the dash (to power it up).
7. Push the CD eject button (C), and navigation DVD eject button and remove the discs (holding the discs by their edges to avoid fingerprints). To avoid scratches, place the navigation DVD, and customer's CD in a jewel case if available.
8. Close the plastic cover that hides the navigation DVD slot.
9. Close the display by first returning the display to the upward position, and then pushing the entire display straight back into the unit.
10. After installing the new navigation unit, re-insert the navigation DVD, the customer's CD, and PC card.

NAVIGATION UNIT REMOVAL/INSTALLATION

SRS components are located in this area. Review the SRS component location, 4-door (see **COMPONENT LOCATION INDEX**), 2-door (see **COMPONENT LOCATION INDEX**).

Also review the precautions and procedures (see **PRECAUTIONS AND PROCEDURES**) in the SRS article before doing repairs or service.

NOTE:

- **Put on gloves to protect your hands.**
- **Take care not to scratch the dashboard and related parts.**
- **Lay a workshop towel under the parts when working on them to protect the face panel from scratches or other damage.**
- **Do not work in a dusty or dirty place.**
- **Discharge static electricity from your body before and**

during the work.

- **Do not touch the circuit board(s) with your bare hands.**
- **Do not work with dirty hands.**
- **Be careful not to fold the flat plate cable.**
- **Do not touch the terminal connector of the flat plate cable with your bare hands. (If you have touched it, wipe it off thoroughly.)**
- **Before replacing the navigation unit, make sure to remove the customer's navigation DVD, and their audio CD, or PC card. Remanufactured navigation units do not come with a navigation DVD. Re-install the customer's navigation DVD, audio CD, and audio PC card into the new Remanufactured unit. If the navigation display won't open, manually remove the navigation DVD, audio CD, and PC card (see CD, DVD, AND PC CARD REMOVAL/INSTALLATION).**

1. Make sure you have the 4-digit anti-theft code for the navigation system, then write down the audio presets.
2. Eject the DVD from the original navigation unit (see **CD, DVD, AND PC CARD REMOVAL/INSTALLATION**). To avoid scratching or damaging the DVD, temporarily place the DVD in a jewel case.
3. Remove the subdisplay visor (see **SUBDISPLAY VISOR REMOVAL/INSTALLATION**).
4. Remove the center pocket hole lid and bolts, then pull out the center panel (A).

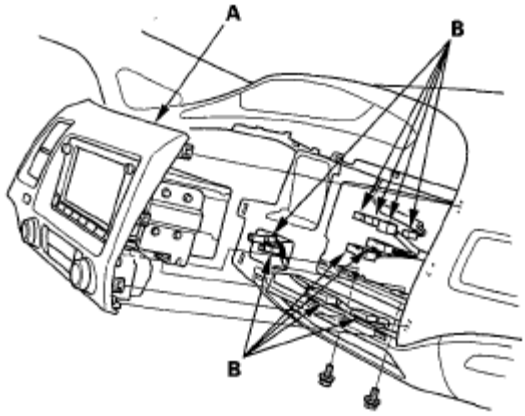


Fig. 80: Identifying Center Panel And Connectors
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Disconnect the connectors (B), then remove the center panel.
6. Remove the screws, brackets (A), and the navigation unit (B) from the center panel (C).

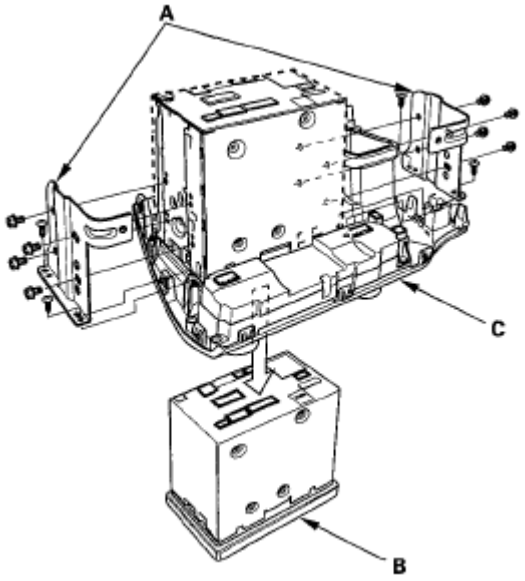


Fig. 81: Identifying Screws, Brackets And Navigation Unit
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Install the navigation unit in the reverse order of removal, and make sure all connectors are secure.
8. Turn the ignition switch to ON (II), then reinstall the customer's original DVD,

verifying that the DVD is free of scratches or smudges.

9. Check any official Honda service website for more service information about the navigation system.

NOTE: Simply transferring the DVD from the original navigation unit to the new navigation unit does not assure the correct software for the vehicle will be loaded into the new navigation unit. Doing the DVD transfer without doing software patches may cause the new navigation unit to appear to be malfunctioning.

10. Enter the new navigation anti-theft code, then enter the audio presets.
11. Park the vehicle outside, and do the GPS initialization (see **GPS INITIALIZATION**).
12. Give the new navigation anti-theft code to the customer.

VOICE CONTROL SWITCH TEST

4-DOOR

1. Remove the driver's airbag assembly (see **DRIVER'S AIRBAG REPLACEMENT**).
2. Remove the 20P connector (A) from the cable reel (B).

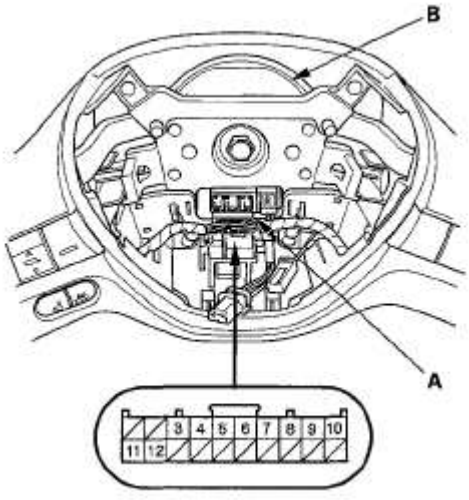


Fig. 82: Identifying Voice Control Switch 20P Connector Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Measure the resistance between the No. 8 and No. 10 terminals in each switch position according to the table.

TERMINALS RESISTANCE REFERENCE

Position	Resistance
No button pressed	About 10 kohms
TALK	About 2.9 kohms
BACK	About 680 ohms

4. If the resistance is not as specified, replace the voice control switch (see **VOICE CONTROL SWITCH REPLACEMENT**).

2-DOOR

1. Remove the voice control switch (see **VOICE CONTROL SWITCH REPLACEMENT**).

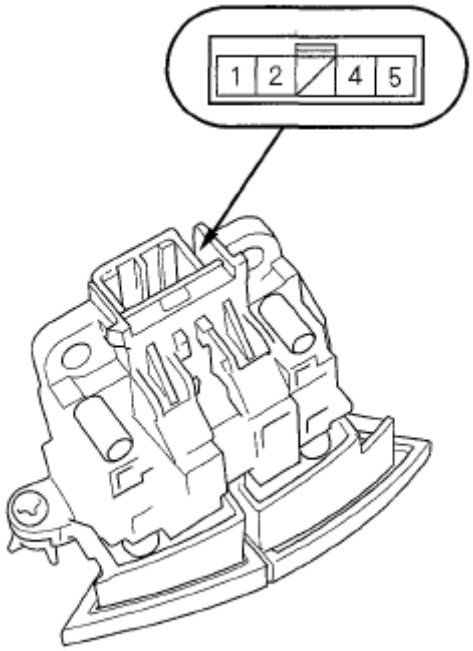


Fig. 83: Identifying Voice Control Switch Connector Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Measure the resistance between the No. 2 and No. 4 terminals in each switch position according to the table.

TERMINALS RESISTANCE REFERENCE

Position	Resistance
No button pressed	About 10 kohms
TALK	About 2.9 kohms
BACK	About 680 ohms

3. If the resistance is not as specified, replace the voice control switch (see **VOICE CONTROL SWITCH REPLACEMENT**).
4. Use a diode tester between the terminals in each switch position according to the table.

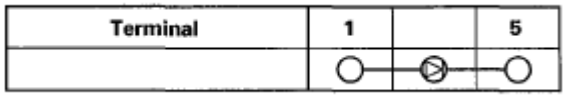


Fig. 84: Terminals Diode Chart
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. If the diode test is not as specified, replace the switch (see **VOICE CONTROL SWITCH REPLACEMENT**).

VOICE CONTROL SWITCH REPLACEMENT

1. Remove the steering wheel (see **STEERING WHEEL REMOVAL**).
2. Remove the voice control switch.
   - Si model (see **STEERING WHEEL DISASSEMBLY/REASSEMBLY**)
   - Except Si model (see **STEERING WHEEL DISASSEMBLY/REASSEMBLY**)
3. Install the voice control switch in the reverse order of removal.

MICROPHONE REPLACEMENT

1. Remove the navigation unit (see **NAVIGATION UNIT**

REMOVAL/INSTALLATION).

2. Remove the meter upper visor (see **INSTRUMENT PANEL REMOVAL/INSTALLATION**).
3. Remove the wire harness clip (A), screws and GPS antenna (B).

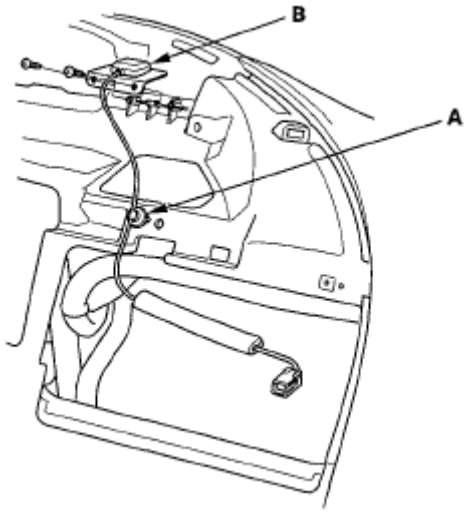


Fig. 85: Identifying Wire Harness Clip, Screws And GPS Antenna
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Install the antenna in the reverse order of removal.

GPS ANTENNA REMOVAL/INSTALLATION

1. Remove the front individual map light lens (A).

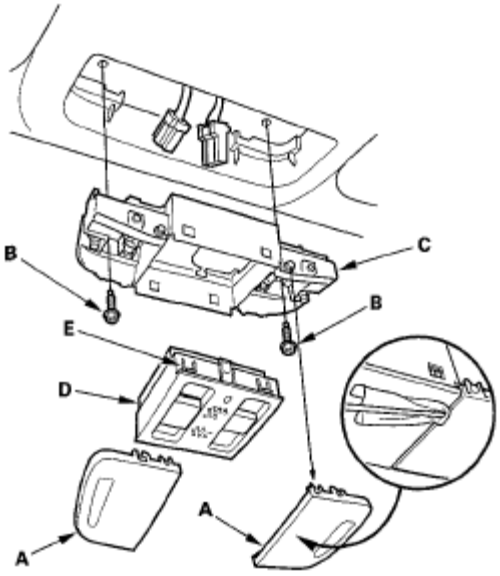


Fig. 86: Identifying Front Individual Map Light Lens
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Remove the bolts (B), then disconnect the connectors and remove the map lights housing (C).
3. Carefully pry off the moonroof switch (D) from the map light housing while pressing the retaining tabs (E).
4. From the moonroof switch (A), remove the screw and microphone (B).

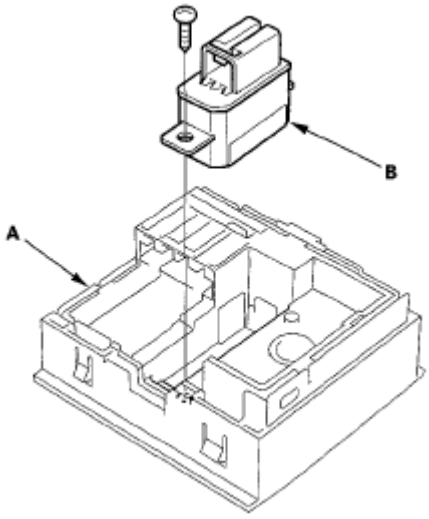


Fig. 87: Identifying Moonroof Switch And Microphone
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Install the microphone in the reverse order of removal.